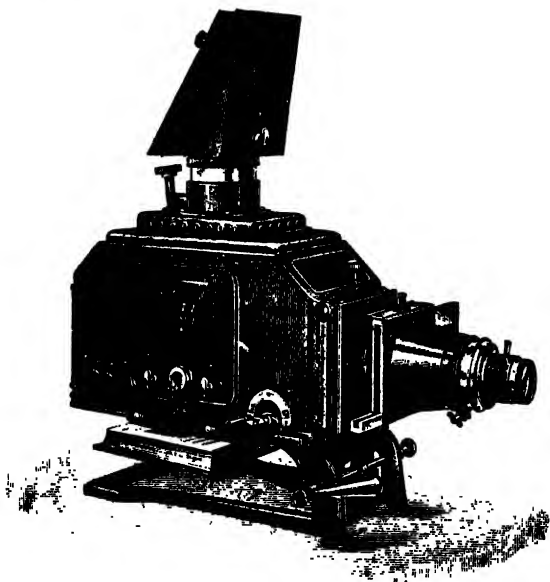


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Supplementary Degree Examinations begin.

THE UNIVERSITY OF LEEDS

THE CHARTER

EDWARD VII, by the Grace of God, of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, King, Defender of the Faith. To all to whom these presents shall come, greeting.

Whereas by Charter of Her Late Majesty Queen Victoria, dated 20th April, 1880, the Victoria University was founded and constituted having its seat in the City of Manchester.

And whereas the Owens College, Manchester, was thereby constituted a College in the University and provision was made that other Colleges might from time to time be admitted as Colleges in the University in the manner and subject to the conditions therein prescribed.

And whereas the University College, Liverpool, was by resolution of the Court of the University admitted as a College of the University on the 5th November, 1884, and The Yorkshire College, Leeds, was by resolution of the said Court admitted as a College in the University on the 3rd November, 1887, but no other College has been so admitted.

And whereas the said University College, Liverpool, has presented to Us in Our Council a humble Petition under the Common Seal of that College praying us to erect a University within the City of Liverpool.

And whereas the Owens College, Manchester, has presented to Us in Our Council a humble Petition under the Common Seal of that College praying that a new or supplemental Charter may be granted so as to constitute and continue the Victoria University as a University in Manchester without association with any College except the Owens College

And whereas the Yorkshire College, Leeds, has presented to Us in Our Council a humble Petition under the Common Seal of that College, praying Us to erect a University having its seat in Leeds.

And whereas we have taken the said Petitions into Our Royal consideration and are minded to accede thereto.

Now therefore know ye that We, by virtue of Our Royal Prerogative and all other powers in that behalf enabling us of Our Special Grace certain knowledge and mere motion by these presents Do for Us, Our Heirs and Successors, grant, will, direct, and ordain as follows :

I. There shall be from henceforth for ever in Our said City of Leeds a University of the name and style of "The University of Leeds," which shall be and continue one body politic and corporate with perpetual succession and a common seal and with full power and capacity by and in such name to sue and be sued and to do all other lawful acts whatsoever and with full power and capacity, subject to the restrictions herein set forth, without any further licence to all persons and corporations to assure and to the University to take, by gift or otherwise purchase and hold and also to grant demise or otherwise dispose of real and personal property.

II. The University shall have the powers following :

1. To grant and confer Degrees and other academic distinctions to and on persons who shall have pursued an approved course of study in the University and shall have passed the examinations of the University under conditions laid down in its Statutes or Ordinances. Provided that degrees representing proficiency in technical subjects shall not be conferred without proper security for testing the scientific or general knowledge underlying technical attainments.

2. To admit graduates of other Universities to Degrees of equal or similar rank in the University.

3. To confer Degrees of the University on any persons who hold office in the University as Professors, Readers, Lecturers, or otherwise, or who shall have carried on independent research therein, or on any persons who, at the date of this Our Charter, are Associates of the Yorkshire College.

4. To grant Diplomas, Licentiateships, Certificates, or other distinctions to persons who have pursued a course of study approved by the University under conditions laid down by the University.

5. To confer Honorary Degrees, or other distinctions on approved persons.

Provided that all Degrees and other distinctions shall be conferred and held subject to any provisions which may be made in reference thereto by the Statutes, Ordinances, or Regulations of the University.

6. To provide for instruction in such branches of learning as the University may think fit, and also to make provision for research and for the advancement and dissemination of knowledge.

7. To examine and inspect schools and other educational institutions, to grant Diplomas and other Certificates, and to provide such lectures and instruction for persons not members of the University as the University may determine.

8. To accept the examinations and periods of study passed by students of the University at other Universities or places of learning as equivalent to such examinations and periods of study in the University as the University may determine, and to withdraw such acceptance at any time.

Provided that in no case shall the University confer a Degree in Medicine or Surgery upon any person who has not attended in the University during two years at least courses of study recognised for such Degree, or for one of the other Degrees of the University.

9. To affiliate other Colleges or institutions or branches or departments thereof, or to admit the members thereof to any of the privileges of the University, and to accept attendance at courses of study in such Colleges or institutions in place of such part of the attendance at courses of study in the University, and upon such terms and conditions and subject to such regulations as may from time to time be determined by the University.

10. To co-operate by means of joint boards or otherwise, with other Universities and Authorities for the

conduct of Matriculation examinations, for the examination and inspection of schools and other academic institutions and for such other purposes as the University may from time to time determine.

11. To enter into any agreement with the Yorkshire College for the incorporation of that College in the University, and for taking over its property and liabilities, and, if necessary, to promote a Bill in Parliament to confirm or carry out any such agreement.

12. To enter into any agreement with any other institution for the incorporation of that institution in the University and for taking over its property and liabilities, and for any other purpose not repugnant to this Our Charter.

13. To enter into any agreement with the Victoria University of Manchester or with the University of Liverpool for the division or apportionment of any of the moneys, endowments, or property of the Victoria University, with due regard to the local origin of any particular foundation, to the wishes of the Donors, and other special circumstances, and for reference to an Arbitrator in case of difference.

14. To institute Professorships, Assistant Professorships, Readerships, Lectureships, Teacherships, and any other offices required by the University, and to appoint to such offices. Also to institute and award Fellowships, Scholarships and Exhibitions and Prizes.

15. To license Halls for the residence of students.

16. To do all such other acts and things whether incidental to the powers aforesaid or not, as may be requisite in order to further the objects of the University as a Teaching and Examining Body, and to cultivate and promote Arts, Science, and Learning.

III. It shall be the duty of the University to co-operate, by means of a Joint Board or otherwise, with the Victoria University of Manchester and the University of Liverpool for the regulation and conduct of Matriculation examinations, including the conditions of exemption therefrom. Statutes of the University shall prescribe and regulate the constitution

and duties of the said Joint Board, the appointment and continuance in office of the members thereof, the filling of vacancies among the members, and all other matters relative to the Joint Board which it may be thought are proper to be so regulated and prescribed.

Visitor

IV. We, Our Heirs and Successors, Kings and Queens of the Kingdom and Dominions aforesaid, shall be and remain the Visitor and Visitors of the University through the Lord President of our Council for the time being, and in the exercise of the Visitorial Authority We and Our Heirs and Successors shall have the right from time to time and in such manner as We or They shall think fit to direct an inspection of the University, its buildings, laboratories, and general equipment, and also of the examination, teaching, and other work done by the University.

Authorities of the University

V. The Authorities of the University shall be the Chancellor, the Pro-Chancellor, the Vice-Chancellor, the Pro-Vice-Chancellor, the Court, the Council, the Senate, the Faculties, the Boards of Faculties, and the Convocation. There shall be a Treasurer and other proper officers of the University.

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The Chancellor

VI. The Chancellor shall be the Head and Chief Officer of the University and President of its Court, Council, and Convocation, and shall, except as otherwise hereby provided, confer Degrees. He shall hold office during his life or until his resignation or until his removal for good cause by the Visitor at the instance of the Court.

Our right trusty and entirely beloved Cousin and Councillor, George Frederick Samuel, Marquis of Ripon, Knight of Our Most Noble Order of the Garter, Doctor of Laws, shall be the first Chancellor of the University.

His successors from time to time shall be elected by the Court on the nomination of the Council of the University.

The Pro-Chancellor

VII. In the absence of the Chancellor, or pending a vacancy in the office of Chancellor, or during the Chancellor's inability to act, the Pro Chancellor shall exercise all the functions of the Chancellor, except the conferring of Degrees, and shall, if present, preside at any meetings of the Court and Council. Our trusty and well-beloved Arthur Greenhow Lupton, Chairman of the Council of the Yorkshire College, shall be the first Pro-Chancellor of the University, and shall hold his office for one year. Subsequent appointments to the said office shall be made annually by the Court on the nomination of the Council.

The Vice-Chancellor

VIII. The Vice-Chancellor shall be ex-officio Chairman of the Senate. In the absence of the Chancellor the Vice-Chancellor shall confer Degrees, except as otherwise hereby provided.

Our trusty and well-beloved Nathan Bodington, Principal of the Yorkshire College, Doctor of Letters, shall be the first Vice-Chancellor of the University, and shall hold such office for such term or terms and subject to such conditions as may from time to time be determined by the Council.

His successors from time to time shall be appointed by the Court on the nomination of the Council and shall hold such office for such term or terms and subject to such conditions as may from time to time be determined by the Council.

The Pro-Vice-Chancellor

IX. Subject to the Statutes and Ordinances of the University, and in the absence of the Vice-Chancellor, the Pro-Vice-Chancellor may act as Vice-Chancellor. The Pro-Vice-Chancellor shall from time to time be appointed by the Council from among the members of the Senate.

The Court

X. The Court shall be the governing body of the University and shall direct the form, custody, and use of the Common Seal, and shall have power to regulate and

determine all matters concerning the University, and generally shall exercise all the powers and discretions of the University, except as otherwise provided by this Our Charter or by the Statutes.

The Court shall have power by Statute to increase or diminish the number of its members, by increasing or diminishing the number to be nominated or appointed by the persons or bodies possessing the right of nomination or appointment, or by adding representatives of other bodies, or in any other manner.

The Statutes set forth in the Schedule hereto annexed shall be the first Statutes of the University under this Our Charter. The Court may amend, add to, or repeal the Statutes for the time being in force (including those set forth in the Schedule hereto), but no such amendment, addition, or repeal shall be valid or operative until allowed by Us or by a Committee of Our Council

Ordinances may be made by the Court for the regulation of all matters not required by this Our Charter to be dealt with by Statute.

- Provided (1) that it shall not be lawful for the Court, by any Statute or otherwise, to adopt or impose on any person any test whatever of religious belief or profession in order to entitle him to be admitted as a Professor, Teacher, Student, or Member of the University, or to hold office therein, or to graduate thereat, or to enjoy or exercise any privilege thereof.

Provided (2) that any Statute or Ordinance made by the Court be not repugnant to the laws of this Realm or to the general objects of this Our Charter.

Provided (3) that Statutes or Ordinances relating to Degrees, studies, and examinations shall not be adopted without report from the Senate.

Provided (4) that no change shall be made in any Statute or Ordinance altering the status, powers, or constitution of any of the Authorities of the University until such Authority shall have had an opportunity of pronouncing an opinion upon the proposed change

The Court shall have power to confer Degrees in absentia by a resolution of the Court, but save as aforesaid all Degrees shall be conferred by the Chancellor or in his absence by the Vice-Chancellor or Pro-Vice-Chancellor.

The Court shall have power to deprive any Graduate of the University who shall have been convicted of a crime or offence, or shall, in the opinion of the Court, have been guilty of scandalous conduct, of any Degree or Degrees conferred by the University and of all privileges enjoyed by him as such Graduate aforesaid.

The acts of the Court shall not be invalidated by any vacancy among its Members.

XI. Every Statute or alteration of a Statute, and every Ordinance or alteration of an Ordinance relating to, any of the matters following, that is to say :

- (a) The titles of Degrees,
- (b) The establishment of new Degrees,
- (c) The periods of residence and study in the University or in any affiliated or recognised institution required for Degrees,
- (d) The conditions under which Degrees higher than the Degree of Bachelor in any faculty are to be granted,
- (e) The courses for medical Degrees and the subjects of examinations,

shall before such Statute or alteration of a Statute shall be allowed and before such Ordinance or alteration of an Ordinance shall become operative and have effect be communicated to the Victoria University of Manchester and the University of Liverpool, and if within one month after the receipt of such communication notice of objection thereto shall have been given by the said Universities or either of them the question so arising shall be considered by a Joint Committee of the three Universities, and in default of agreement any of the said Universities may within one month make a representation in regard thereto to Us or to a committee of Our Council, and, in the event last mentioned, such Statute or Ordinance or alteration therein shall not become operative and have effect until allowed by Us or by such Committee.

Statutes of the University shall prescribe and regulate the constitution and appointment of the said Joint Committee and all other matters relating to the said Committee which it may be thought are proper to be so prescribed and regulated.

The Council

XII. The Council shall be the Executive Body of the University and may exercise and do such of the powers, authorities, and things by this Our Charter granted to or authorised to be done by the Court, as are, or shall from time to time be assigned to the Council by Statute or by the Court, except the election of Members of the Court to be Members of the Council.

The Court shall have power by Statute to increase or diminish the number of the Council, by increasing or diminishing the number to be nominated, elected, or appointed by the persons or bodies possessing the right of nomination or appointment, or by adding representatives of other bodies, or in any other manner.

The Council shall have power to draft Statutes and Ordinances as and when they see fit, and to submit the same to the Court for consideration and enactment.

The acts of the Council shall not be invalidated by reason of any vacancy among its members.

The Senate

XIII. The constitution of the Senate shall be determined by Statute.

The Senate shall, subject to the Statutes and Ordinances of the University, and subject also to review by the Court, have the control and general regulation of the instruction and education within the University and shall have power to discuss and pronounce an opinion on any matter whatsoever relating to the University and such other powers and duties as may be conferred upon it by Statute or Ordinance.

Faculties

XIV. The University shall include the Faculties of Arts, Science, Medicine and Technology, and such other Faculties

(whether formed by the sub-division of an existing faculty or by the creation of a new faculty or otherwise) as may from time to time be constituted by Statute.

The constitution and powers of the several Faculties shall be determined by Statute.

Such Boards of Faculties shall be appointed by the Council as the Council may from time to time determine; the members of each Board (the numbers of whom shall be in the discretion of the Council) shall be appointed by the Council from among members of one or more Faculties, or from among the External Examiners of the University.

Convocation

XV. The Convocation shall consist of the Chancellor, the Vice-Chancellor, the Pro-Vice-Chancellor, the Members of the Senate, the Lecturers, and the registered Graduates of the University.

The Court shall have power to fix the conditions of registration and to prescribe the annual or other fees, or a composition therefor which shall be necessary for registration.

The Chancellor, if present, shall preside at the Meetings of Convocation.

Powers of Convocation

XVI. Convocation shall have the following powers:

To elect its own Chairman, who shall, in the absence of the Chancellor, preside at its Meetings.

To elect representatives as Members of the Court and Council.

To discuss and pronounce an opinion on any matter whatsoever relating to the University, including any matters referred to them by the Court or the Council.

To prescribe the mode of conducting the proceedings of Convocation and of registering the same, and of reporting the same to the Court, Council, or Senate, or any of them.

To enter into communication directly with the Court, Council, or Senate on any matter affecting the University.

Regulations as to Procedure

XVII. The Court, the Council, the Senate, the Faculties, the Boards of Faculties, and Convocation respectively may from time to time make regulations for governing their respective proceedings, subject to this Our Charter and to the Statutes and Ordinances of the University.

The Treasurer

XVIII. Our trusty and well-beloved Sir John Barran, Baronet, Treasurer of the Yorkshire College, shall be the first Treasurer of the University, and shall hold his office for one year. Subsequent appointments to the said office shall be made annually by the Court.

Members of the University

XIX. The Members of the University shall be the Chancellor, the Pro-Chancellor, the Vice-Chancellor, the Pro-Vice-Chancellor, the Treasurer, the Members of the University Court, the Professors, Emeritus Professors, Assistant Professors, Readers, Lecturers and Demonstrators, and such other Teachers of the University as the Court may determine, the Members of the Faculties, the holders of such other University offices as the Council may from time to time determine, the Wardens or other chief officers of Halls of Residence licensed by the University, Fellows, Graduates, and Undergraduates of the University.

The Undergraduates of the University shall be such persons attending lectures, or receiving instruction in the University as shall have matriculated under the Statutes.

Advisory Committees

XX. The Council may from time to time appoint Advisory Committees, consisting of members of the University, and also if the Council shall think fit, of persons who are not members of the University, and may delegate to such Committees such duties as it thinks fit as regards financial, administrative, or other matters affecting the University or any particular Faculty or Department, or the management or supervision of any buildings or property of the University.

Examiners and Examinations

XXI. All examinations held by the University shall be conducted in such manner as the Statutes and Ordinances shall prescribe, provided that at least one external and independent examiner shall be appointed by the Council for each subject or group of subjects forming part of the course of studies required for University degrees, but this proviso shall not apply to examinations for admission or entrance to the University.

Provided that in case of a vacancy occurring in or during any examination or of other emergency the Vice-Chancellor shall have power to appoint a substitute for that examination.

General Provisions

XXII. All the Degrees and courses of study of the University shall be open to women, subject to such conditions and regulations as the Court may prescribe, and women shall be eligible for any office in the University and for membership of any of its constituent bodies, and in the present Charter words implying the male sex shall be held to include the female, unless the context clearly shows the meaning to be otherwise.

XXIII. The University may from time to time found and endow Fellowships, Scholarships, Exhibitions, and other Prizes for which funds or property may, by bequest, donation, grant, or otherwise be provided, and may make regulations respecting the same and the tenure thereof, but, except as aforesaid, and except by way of prize, reward, special grant, or remuneration for services rendered or to be rendered, in the past, present, or future respectively, the University shall not make any gift, division or bonus in money unto or between any of its members.

XXIV. In addition to the buildings, lands, and premises of the University for the time being used and occupied for the immediate purposes thereof, the University shall have power to hold lands, tenements, and hereditaments of an annual value not exceeding in the aggregate, at the time or respective times of the acquisition of the same, the sum of £50,000.

XXV. The University may demand and receive such fees as the Court may from time to time appoint.

XXVI. The Court may from time to time alter, amend, or add to these presents by a Special Resolution in that behalf, and such alteration, amendment or addition shall, when allowed by Us, our Heirs, or Successors, or by any Committee of our Most Honourable Privy Council, or otherwise as We or They shall think fit, become effectual so that these presents shall thenceforward continue and operate as though they had been originally granted and made as so altered, amended, or added to. This Article shall apply to this Charter as altered, amended, or added to in any manner aforesaid.

XXVII. A Special Resolution is a Resolution passed at one meeting of the Court and confirmed at a subsequent meeting, held not less than one calendar month, nor more than three calendar months after the former, provided that the Resolution be passed at each meeting by a majority of not less than three-fourths of the Members of the Court present and voting thereon.

XXVIII. In this Our Charter "Statutes" means the Statutes set forth in the Schedule hereto and any Statutes altering, amending, adding to, or repealing the same or any of them which may hereafter be made and may be allowed by Us in Council, or by a Committee of Our Council.

"Ordinances" means Acts of the Court under the powers conferred by this Our Charter to which Our further sanction is not hereby or by Statute required.

"Regulations," except when otherwise required by the context, means Regulations made pursuant to this Our Charter or the Statutes.

XXIX. Our Royal Will and pleasure is that this Our Charter shall always be construed and adjudged in the most favourable and beneficial sense for the best advantage of the University, and the promotion of the objects of this Our Charter as well in all our Courts as elsewhere notwithstanding any non-recital, mis-recital, uncertainty or imperfection herein.

THE SCHEDULE

STATUTES

I.

The University Court

(a)

The University Court (hereinafter called the Court) shall consist of the following persons, viz. :

1. *Ex-officio* members, The Chancellor, the Pro-Chancellor, the Vice-Chancellor, and the Treasurer.

2 All present members of the Council of the Yorkshire College; all future members of the University Council, during their tenure of office; all present Perpetual and Life Governors of the College; and all future Donors of £1,000 to the University. If a donation of £1,000 be made by a company, society, or partnership firm, one member thereof may be nominated by the Donors as a member of the Court.

Six representatives of the Clothworkers' Company of London.

One representative of the Skinners' Company of London.

One representative of the Drapers' Company of London.

One representative of the Trustees of William Akroyd's Foundation.

One representative of the West Yorkshire Coal Owners' Association.

One representative of the Yorkshire Board of Legal Studies.

3. Representatives of Public Authorities, viz. :

Six from the County Council of the West Riding of Yorkshire.

Two from the County Council of the North Riding of Yorkshire.

Two from the County Council of the East Riding of Yorkshire.

Four from the Council of the County Borough of Leeds.

Two from the Council of the County Borough of Bradford.

*One from the Council of the County Borough of York.

One from the Council of the County Borough of Hull.

One from the Council of the County Borough of Halifax.

One from the Council of the County Borough of Huddersfield.

One from the Council of the County Borough of Middlesbrough.

One from the Council of each of such other County Boroughs to be created in future as may be approved by the Court.

4. Representatives of the University :

Ten from the Faculties.

Representatives (not exceeding five in all) of the Convocation, viz :—one representative for every hundred members up to 500.

5. Representatives of other Institutions, viz. :

Representatives of such Affiliated Institutions as the Court may determine, and

One representative of the Victoria University of Manchester.

One representative of the University of Liverpool.

One representative of such other English University as the Court may determine.

6. Representatives of Schools :

Eight representatives of the Head Masters and Mistresses of Secondary Schools in Yorkshire, such representatives to be appointed by the Court.

7. Other Governors :

Three persons appointed by the Crown.

Ten persons elected by co-optation by the Court.

Except as otherwise by the Charter provided, and subject to the Statutes of the University, the Court may determine all matters relating to the nomination, appointment, and election of members of the Court and Council, and their respective periods or terms of office, and all other matters relating to the constitution of the Court and Council.

(b)

The Court shall have power to delegate its functions to the Council except as otherwise provided, and to delegate to the Senate the power to award Degrees other than *ad eundem* Degrees, Degrees conferred on persons who hold office in the University, and Honorary Degrees.

The periods during which members of the Court respectively shall hold office shall be as follows :

The Chancellor, the Pro-Chancellor, the Vice-Chancellor, the Treasurer, and all future members of the University Council shall hold office during the time they occupy the positions named respectively.

All present members of the Council of the Yorkshire College, and all present Perpetual and Life Governors of the Yorkshire College, and all future donors of £1,000 to the University, and the persons nominated by the donors in the case of donations of £1,000 made by a company, society, or partnership firm, shall hold office for their respective lives, or until resignation.

All other members mentioned in clause (a) 2 above, and all members mentioned in clause (a) 3 above, shall hold office for one year from the date of appointment. Of the members mentioned in clause (a) 4, the ten representatives of the Faculties shall hold office for two years from the respective dates of appointment, and five of such members, to be selected by lot or otherwise as the Court shall determine, shall retire in each year ; provided that if a representative of a Faculty ceases to be a member of that Faculty he shall cease to be a member of the Court. The representatives of Convocation shall hold office for two years from the date of appointment. Members mentioned in clause

(a) 5 and 6, shall hold office for two years from the respective dates of appointment. Members mentioned in clause (a) 7 shall hold office for five years from the respective dates of appointment, but of the members appointed by co-optation two, to be selected by lot or otherwise as the Court shall determine, shall retire each year.

All retiring members shall be eligible for re-appointment or re-election.

Appointees or representatives need not be members of the bodies appointing.

Any member of the Court may resign such membership at any time by letter addressed to the Registrar of the University.

Any casual vacancy occurring by resignation, incapacity, or death among the appointed or representative or co-opted members shall be filled up as soon as convenient by the person or body which appointed or co-opted the member whose place has become vacant. If such member was a member for a term of years the person appointed to supply his place shall be a member of the Court for the remainder of that term.

Fifteen members of the Court shall form a quorum, and, until the above-mentioned representative members have been appointed, the other members shall form the Court.

II.

The University Council

(a) The University Council (hereinafter called the Council) shall consist of the following persons, namely:—

The Chancellor, the Pro-Chancellor, the Vice-Chancellor, and the Treasurer.

Two representatives of the West Riding County Council.

One representative of the North Riding County Council.

One representative of the East Riding County Council.

Two representatives of the County Borough of Leeds.

One representative of the County Borough of Bradford.

One representative of the Council of the County Borough of York.

One representative of the Council of the County Borough of Hull.

One representative of the Council of the County Borough of Halifax.

One representative of the Council of the County Borough of Huddersfield.

One representative of the Council of the County Borough of Middlesbrough.

One from the Council of each of such other Yorkshire County Boroughs already existing or to be created in future as may be approved by the Court.

Two representatives of the Clothworkers' Company of London.

Five representatives to be elected by the Faculties of the University.

One member to be elected by Convocation.

One member to be nominated by the Crown.

Twelve members to be elected by the Court. Provided nevertheless, that at first such of the present members of the Council of the Yorkshire College as have been elected thereto by the Board of Governors of the College shall take the place of the said twelve members; and of such members of the Council of the Yorkshire College four, to be selected by lot or otherwise as the Council may determine, shall retire every three years until the number of such members has been reduced to twelve or less; and on the number of such members being reduced to less than twelve the Court shall have power to appoint any other person or persons to make up such number to twelve. Provided also that, as from the 1st May, 1920, the number of members to be elected by the Court shall be increased from twelve to sixteen. Provided also that a person of the age of 71 years or over shall not be eligible for election or re-election by the Court as a member of the Council unless he was a member on the 21st April, 1920. So soon as the number of such members shall have been reduced to twelve or less, the members of the

Council of the Yorkshire College who at that time remain members of the Council, together with such appointee or appointees of the Court as aforesaid, shall hold office for the period and be subject to the provisions as to retirement hereinafter mentioned, as if all such members and appointees as aforesaid had been elected members of the Council by the Court on the day when such number as aforesaid was reduced to twelve or less.

The members of the Teaching Staff who are members of the Council, however elected (including the Vice-Chancellor), shall not exceed one fifth of the whole Council.

(b) The periods during which the members of the Council respectively shall hold office shall be as follows :

The Chancellor, the Pro-Chancellor, the Vice-Chancellor and the Treasurer shall hold office for the time during which they occupy the positions named respectively.

All other members of the Council shall hold office for one year from the date of appointment, except as otherwise hereinbefore provided and except members elected by the Court, who shall hold office for three years (four, to be selected by lot or otherwise as the Council shall determine, retiring each year), and except the person appointed by the Crown, who shall hold office for five years. Provided that the term of office of members newly elected by the Court in or after the year 1920 (other than those appointed to fill casual vacancies) shall be four years, and that the term of office of retiring members re-elected by the Court after the year 1920 shall also be four years.

Subject to the proviso contained in the foregoing Sub-section (a) as to an age-limit for the election or re-election of members by the Court, all retiring members shall be eligible for re-appointment or re-election.

Appointees or representatives need not be members of the bodies appointing.

Any member of the Council may resign such membership at any time by letter addressed to the Registrar of the University.

Any casual vacancy occurring by resignation, incapacity, or death among the appointed or representative members shall be filled up as soon as convenient by the person or body which appointed the member whose place has become vacant. If such member was a member for a term of years the person appointed to supply his place shall be a member of the Council for the remainder of that term.

Seven members of the Council shall form a quorum, and until the above named representative members have been elected, the other members shall form the Council.

III.

Powers of the Council

Subject to the provisions made in the Charter and Statutes, the Council shall have the following powers :

To nominate the Pro-Chancellor and the Vice-Chancellor.

To elect Professors of the University, and either to elect or to delegate to the Senate the election of any academic officers of the University other than Professors.

To elect a Registrar and other officers of the University for such periods and under such conditions as may be determined by the Council.

To institute Professorships, Assistant Professorships, Readerships, Lectureships, or other teaching offices, after giving the Senate the opportunity of reporting thereon.

To abolish or hold in abeyance, after giving the Senate the opportunity of reporting thereon, any Professorship, Readership, or other academic office in the University.

To draft Statutes and Ordinances as and when it sees fit and submit the same to the Court. Provided that any Statute or Ordinance relating to courses of study shall not be adopted without giving the Senate the opportunity of reporting thereon.

To make regulations for any purposes for which regulations are or may be authorised to be made.

To govern, manage, and regulate the finances, accounts, investments, property, business, and all affairs whatsoever of the University, and for that purpose to appoint Bankers, Deputy-Treasurers, and any other officers or agents whom it may seem expedient to appoint.

To invest any moneys belonging to the University, including any unapplied income in such stocks, funds, fully paid shares or securities as the Council shall from time to time think fit, whether authorised by the general law for the investment of trust moneys or not, and whether within the United Kingdom of Great Britain and Ireland or not or in the purchase of freehold, copyhold, or leasehold hereditaments in the United Kingdom, including rent charges, or chief rents, with the like power of varying such investments from time to time by sale and re-investment or otherwise.

To sell, buy, exchange, lease, and accept leases of real and personal property on behalf of the University.

To provide the buildings, premises, furniture, and apparatus and other means needed for carrying on the work of the University.

To enter into, vary, carry out, and cancel contracts on behalf of the University. Any contract entered into on behalf of the University may be made in any manner authorised by law for the making of contracts by or on behalf of Companies incorporated under the Companies' Acts, 1862 and 1867.

IV.

Powers of the Vice-Chancellor

The Vice-Chancellor shall have the sole power of suspending or dismissing any offending student, subject to the right of appeal to the Visitor. He shall exercise general supervision over the educational arrangements of the University, regulate the admission of students, and maintain the discipline of the University, for which he shall be responsible to the Council.

V.

The Senate

The Senate of the University shall consist of the Vice-Chancellor and the Professors of the University, and of such other members of the Boards of Faculties hereinafter mentioned as the Court may, after report from the Senate, appoint, provided that the number of such other members appointed shall not exceed three, and that they shall hold office for such term only as the Court shall determine.

The Professors of the University within the meaning of the Charter shall include those persons who shall be appointed by the Council as such, and also the Professors of the Yorkshire College at the date of the Charter, who shall hold their Professorships upon the same conditions as those upon which they held them at the date of the Charter, until such conditions shall be modified or altered by the Council.

The Senate shall have the following powers :

To make and submit to the Council, after report from the Board or Boards of Faculties concerned, all regulations for giving effect to the Statutes and Ordinances of the University relating to courses of study.

To appoint Internal Examiners after report from the Board or Boards of Faculties concerned.

To recommend External Examiners for appointment by the Council after report from the Board or Boards of Faculties concerned.

To report to the Council, after report from the Board or Boards of Faculties concerned, on all Ordinances relating to courses of study.

To report to the Council on Statutes or Ordinances or proposed changes of Statutes or Ordinances.

To report on any matter referred to or delegated to them by the Court or the Council.

To discuss and declare an opinion on any matter whatsoever relating to the University.

To appoint on delegation of the Council, Readers, Lecturers, and other academic officers of the University not being Professors.

To formulate and modify or revise, subject to the control of the Council, schemes for the organisation of Faculties of Arts, Science, Medicine, Technology, and any other Faculties of the University, and to assign to such Faculties their respective subjects; also to report to the Council as to the expediency of the establishment at any time of other Faculties, or as to the expediency of the abolition, combination, or subdivision of any Faculties.

To fix, subject to any conditions made by the Founders which are accepted by the Court, the times and mode and conditions of competition for Fellowships, Scholarships, and other Prizes, and to award the same.

To do such other acts and things as the Court shall authorise.

No new Degree shall be established or other distinction of Honour or Merit adopted until the Senate has had an opportunity of reporting thereon.

VI.

Faculties

Each of the Faculties shall respectively consist of:—

1. The Professors assigned thereto by the Council.
2. Such Lecturers, Assistant Lecturers, and other teachers of the University as may be appointed to the Faculty by the Council on the recommendation of the Senate.
3. Such other persons as may be appointed by the Council of the University on the recommendation of the Senate.

Each of the Faculties shall have the power of electing a representative or representatives on the Court and Council of the University, but in the event of the number of Faculties being so increased that the members of the staff elected by

them would exceed the proportion limited as hereinbefore expressed, the Council shall decide by what Faculties or combinations of Faculties the election shall be made.

Each Faculty shall have the power of presenting recommendations and reports to the Senate upon all matters connected with the subjects of study embraced by the Faculty.

The Faculty of Arts shall, until otherwise provided by Statute, include Economics and Law.

The Faculty of Technology shall, until otherwise provided by Statute, include Agriculture, Dyeing, Engineering, Leather Industries, Mining, and Textile Industries.

The Vice-Chancellor shall be a member of each of the several Faculties and Boards of Faculties.

There shall be a Dean of each Faculty elected by that Faculty, or otherwise as the Council shall direct. He shall preside at the meetings of the Faculty and hold office during such period and with such powers as shall be determined by Statute or Ordinance, and shall be eligible for re-election.

VII.

Powers of the Boards of Faculties

The Boards of Faculties respectively shall have the powers following:—

To regulate, subject to the control of the Senate, the teaching and study of the subjects assigned to the Board in question.

To make recommendations as to the appointment of Examiners.

To report to the Senate on Ordinances and Regulations dealing with courses of study for degrees and other distinctions, and on any questions relating to the work of the respective Faculties.

To deal with any matter referred or delegated to them by the Senate.

VIII.

Convocation

A Register shall be kept containing the names of all persons who are members of Convocation according to the provision made by the Charter.

The Register shall be conclusive evidence that any person whose name appears therein at the time of claiming to vote in Convocation is entitled to vote, and that any person whose name does not appear therein is not so entitled.

A meeting of Convocation shall be summoned at least once in every year and at such other times as Convocation may by its by-laws determine.

A meeting of Convocation may be called by the direction of the Chairman, and shall also be called on the requisition in writing of at least twenty members.

IX.

Auditor

The Court shall annually appoint an Auditor, who shall be a member of the Institute of Chartered Accountants of England and Wales, or of the Incorporated Society of Accountants and Auditors, in the active practice of his profession, who shall receive such remuneration as may from time to time be determined by the Court.

Acceptance of office by an Auditor shall be deemed to carry with it an undertaking by the Auditor to the University that every certificate given by him, or passing of accounts by him, implies that he has satisfied himself by full and careful investigation (made by himself or agents, for whom he undertakes to be responsible) by every reasonable means within his power, and after the exercise of due professional skill, that the statements in the certificate are true and accurate, and that any accounts certified or passed are complete, true, and accurate.

X.

Committee for considering objections by the Universities at Manchester and Liverpool

The Joint Committee to be constituted pursuant to Clause XI of the Charter for considering objections made by the Victoria University of Manchester and the University of Liverpool to proposed Statutes and Ordinances, shall consist of nine members, three to be appointed by each University.

The Joint Committee shall be convened by the Registrar of the Victoria University of Manchester.

XI.

Committee for considering objections to proposed Statutes and Ordinances of the University of Sheffield

Any Committee to be constituted for considering objections made by any of the Universities in Manchester, Liverpool and Leeds to proposed Statutes and Ordinances of the University of Sheffield shall consist of twelve members, three to be appointed by each of the said Universities.

Such Committee shall be convened by the Registrar of the Victoria University of Manchester.

XII.

Regulation and conduct of the Matriculation examination

The Matriculation examination which must be passed by students before entering on the degree courses in the University shall be regulated and conducted by a Joint Board constituted as hereinafter prescribed.

The Joint Board shall determine the conditions and subjects of the examination, together with the exemptions and conditions of exemption from it, provided that the Senate of each University shall have power to exempt from the Matriculation examination such persons as it may judge suitably qualified by higher study or research to enter upon a course for a degree.

The Board shall, with the consent of the five Universities concerned, have power to prescribe particular subjects to be passed in the examination as a condition of admission into particular Faculties, provided that at any time after any regulation to that end shall have been prescribed by the Board any of the five Universities shall have power to cause it to cease to be operative, on the expiration of two years from the date of notice to be given to the Board, so far as concerns such University.

The regulations of the Board regarding the Matriculation examination shall not affect the power of each University (a) to require a standard higher than that of the Matriculation examination in any subject or subjects as a condition of admission into any Faculty or School; (b) to require candidates as a condition of admission into its several Faculties and Honours Schools and courses leading to a

particular degree to have passed in such of the optional subjects of the Matriculation examination as the University may determine; (c) to admit unmatriculated students to such classes as it may think fit; or (d) to determine how far the examinations recognised by the Joint Board as exempting from the Matriculation examination shall be accepted by the University concerned as satisfying the requirements made by the University under sections (a) and (b) of this clause.

The Joint Board shall consist of twenty members, four to be elected annually by each of the Universities in Manchester, Liverpool, Leeds, Sheffield, and Birmingham, with power to co-opt persons of educational experience to the number of six.

When any change in the regulations regarding the Matriculation examination is carried in the Joint Board by a majority consisting of less than two-thirds of the members who are present, the question at issue shall, if any four members present and voting so require, be referred to each of the five Universities, who shall each then nominate two additional members of the Board for the purpose of dealing with such question. The decision of the Board so constituted shall be final.

The Board shall send annual reports to each University.

The five Universities shall contribute to the expenses of the Joint Board in such proportions as may be hereafter determined.

XIII.

Periods of Study before Graduation

The period of study necessary to qualify any student for graduation shall not be less than three years, all of which shall be subsequent to the date at which the student passes the Matriculation examination.

This Clause shall come into operation not later than October 1st, 1906.

In the case of the Yorkshire College, and in the event of any other College or Institution, or any branch or department thereof, becoming affiliated to the University within six months from the date of the Charter, the University may

accept attendance which commenced on or subsequent to the First day of October, 1903, at courses of study in the Yorkshire College or in such other College or Institution in place of attendance at courses of study in the University for the same period.

XIV.

Definitions

In these Statutes—

“Statutes” means the Statutes of the University.

“Ordinances” means Ordinances made pursuant to the Charter or Statutes.

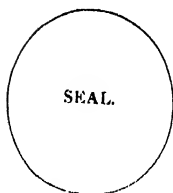
“Regulations” means Regulations made pursuant to the Charter or Statutes.

In witness whereof We have caused these Our Letters to be made Patent.

Witness Ourselves at Westminster the twenty-fifth of April in the Fourth Year of Our Reign.

By Warrant under the King's Sign Manual.

MUIR MACKENZIE.



ORDINANCES

made by the Court in accordance with the provisions of
Clauses X and XI of the Charter

I., AFFILIATED COLLEGES AND INSTITUTIONS

1. Colleges and Institutions, or parts thereof, may be admitted to affiliation after report by the Senate. The Senate, before recommending the affiliation of any such College or Institution, shall satisfy itself :

(a) That the College or Institution has attained a satisfactory standard of educational efficiency for the purposes for which affiliation is sought, and is established on a permanent basis.

(b) That the majority of regular students in such College or Institution are of the age of sixteen years.

2. In the case of any affiliated College or Institution, or of any part of such College or Institution recognised for the purposes of this clause, students who have attained the age of seventeen years, and have passed the Matriculation examination of the University, or are exempt therefrom, shall be allowed to attend at any such College or Institution a part or the whole of a course of study, approved by the Senate of the University as exempting from such courses of study in the University as the Council may approve, provided that in no case shall the University confer a degree upon any person who has not attended in the University during one year at least the courses of study which have been recognised for such degree, and that in every case the period of attendance in the University of a candidate for an Honours degree shall be not less than two years.

3. The Council shall, after a report from the Senate, determine the privileges to which the students of any such affiliated College or Institution shall be admitted.

4. Any College or Institution desiring to avail itself of the foregoing Ordinance shall

(a) Make provision for the representation of the University on the body which determines the annual plan of study, in so far as it concerns the courses submitted for the approval of the University ;

- (b) Submit for the approval of the Senate of the University day courses of study, whose duration, scope, and standard shall be equivalent to the corresponding courses of the University.

5. The University shall inspect from time to time the buildings and equipment for teaching provided in any such College or Institution, and shall satisfy itself as to the qualifications of any teacher therein appointed to conduct the courses offered in place of University courses.

6. The Council, after a report from the Senate, shall be entitled at any time to withdraw any privileges which may have been granted to any College or Institution under these Ordinances, and to remove the said College or Institution from affiliation.

Affiliated Colleges

THE COLLEGE OF THE RESURRECTION, MIRFIELD (May 18, 1904). By resolution of the Council the students of this College are exempt from attendance at the University upon the first of the three years of study required for the B.A. Ordinary or Honours degree.

THE TECHNICAL COLLEGE, HUDDERSFIELD. (March 2, 1906). By resolution of the Council, attendance upon certain classes in this College is recognised as exempting from attendance upon classes in the University in the first year of the courses required for the degrees of B.A., B.Sc. (including Engineering), and M.B. and Ch.B.

RAWDON COLLEGE, RAWDON. (May 17, 1916). By resolution of the Council (October 1, 1915), attendance upon certain courses of study in this College is recognised as exempting from attendance upon courses in the University in the first of the three years of study required for the B.A. (Ordinary and Honours Degree).

DIOCESAN TRAINING COLLEGE, YORK. (June 15, 1921). Attendance upon certain courses of study of this College is recognised as exempting from Intermediate (or Introductory) courses in the University in the first of the years of study for the B.A. and B.Sc. (Ordinary and Honours) degrees.

LEEDS TECHNICAL COLLEGE—PRINTING DEPARTMENT.
(December 20th, 1922). Affiliation granted with a view to the recognition of classes at the Printing Department as part of the course for the degree of B.Com.

II. DEGREES IN ARTS

III. DEGREES IN COMMERCE

IV. DEGREES IN LAW

V. DEGREES IN SCIENCE

VI. DEGREES IN MEDICINE AND SURGERY

VII. DEGREES IN DENTAL SURGERY

The Ordinances governing the above-mentioned degrees—Clauses II to VII—are set out in full in subsequent pages of the Calendar.

**VIII. RECOGNITION OF VICTORIA UNIVERSITY
COURSES AND EXAMINATIONS**

(a) The Senate, or any Committee of the Senate appointed for that purpose, is hereby empowered to recognise courses of study pursued and examinations passed by students of the Yorkshire College or of the University of Leeds in the Victoria University or the Victoria University of Manchester prior to January 1, 1905, as equivalent to corresponding courses and examinations in the University of Leeds.

(b) The Senate, or any Committee of the Senate appointed for that purpose, is hereby also empowered to make such concessions in exemption from examinations and from attendance on courses of study, as may be required to place a past or present student of the University or of the Yorkshire College, who has been admitted thereto before 1st October, 1904, in as favourable a position in the above respects as if he had become or had continued to be a student of the Victoria University or of the Victoria University of Manchester.

(c) A student of the Yorkshire College, who before December 31, 1904, has passed a Final examination of the Victoria University or of the Victoria University of Manchester, for the Bachelor's degree in the Faculty of

Arts, Science, Law, or Medicine shall be entitled to be admitted to the Bachelor's degree of the University of Leeds; and if he has been admitted to the Bachelor's degree of the Victoria University or the Victoria University of Manchester he shall be entitled to proceed to the higher degrees of the University of Leeds on the same conditions as if he had graduated in this University.

IX. RECOGNITION OF COURSES AND EXAMINATIONS OF OTHER RESIDENTIAL UNIVERSITIES

(a) Subject to the provisions of the Charter and Statutes, the Senate, or any Committee of the Senate appointed for that purpose, is hereby empowered to allow members of any University, in which residence is required as a condition of graduation, or members of any University who have attended courses of study at some College or other place of learning which is affiliated or associated with such University, after Matriculation at the University of Leeds, and presentation of certificates of conduct satisfactory to the Senate or Committee, to count such periods of residence passed by them at such other University as equivalent to such periods of residence at the University of Leeds as the Senate or Committee may determine, provided that no degree of this University shall be conferred on any such person unless he shall have pursued an approved course of study in this University extending over at least two years, and shall have passed the Final examination for such degree.

(b) Undergraduates of other Universities who have been admitted, under this Ordinance, as members of this University may be allowed to count examinations passed by them at such other Universities as equivalent to such examinations or portions of examinations other than the Final examination of this University as the Senate, or any Committee of the Senate appointed for that purpose, may from time to time determine.

(c) Undergraduates of the University of Leeds who are pursuing an approved course of instruction in any of the Honours Schools of the University may be allowed to count

such periods of residence passed by them at other Universities during their undergraduate course as equivalent to such periods of residence at the University of Leeds as the Senate, or any Committee appointed for that purpose, may from time to time determine, provided that no degree of this University shall be conferred upon any such undergraduate unless he shall have pursued an approved course of study in this University extending over at least two years, and shall have passed the Honours examination for such degree.

X. CONFERMENT OF DEGREES UPON FORMER STUDENTS OF THE YORKSHIRE COLLEGE

1. As to conferment of *ad eundem* degrees on students who have attended full courses of study at the Yorkshire College and have graduated at various Universities, but who have not been admitted to the College Associateship :

Graduates of the Victoria University shall be offered the same degrees in the University of Leeds as those which they have received from the Victoria University.

Graduates in Medicine of other Universities shall be admissible on application to the M.B. degree of the University of Leeds.

Applications from non-medical graduates of other Universities who have been students of the Yorkshire College shall be considered on their merits.

In every case of admission under the above conditions a fee of 10s. 6d. shall be charged.

2. As to Associates of the Yorkshire College :

Graduates of the Victoria University shall be offered the same degrees in the University of Leeds as those which they have received from the Victoria University.

Graduates of other Universities shall be offered the degree of Bachelor in this University in the Faculties in which they graduated elsewhere.

All Associates of the Yorkshire College admitted to degrees of the University of Leeds under these conditions shall be admitted without fee.

3. All persons admitted to degrees of the University of Leeds under the foregoing conditions shall be admissible as life members of the Convocation of the University.

4. No graduate admitted under the above conditions to a lower degree shall be precluded from proceeding in the University of Leeds to a higher degree in his particular faculty.

XI. STANDING OF CERTAIN GRADUATES IN PROCEEDING TO HIGHER DEGREES

1. Graduates of other Universities who have been admitted to degrees of equal or similar rank in this University shall be allowed, in proceeding to higher degrees, to count their standing as graduates from the date of their graduation in such other Universities.

2. Associates by examination of the Yorkshire College who have been admitted to degrees in this University shall be allowed, in proceeding to higher degrees, to count their standing as graduates from the date of admission to the Associateship.

XII. AWARD OF DEGREES BY SENATE

The Senate is hereby empowered to award degrees other than (1) *ad eundem* degrees, (2) degrees conferred on officers of the University, and (3) honorary degrees, in accordance with the provision in that behalf contained in Statute I. b.

XIII. AWARD OF DEGREES BY COUNCIL

1. The Council is hereby authorised to grant to any Professor of the University, or to any Lecturer who is the head of any department in the University, a degree not higher than that of Master in the Faculty in which he has graduated, or, in the case of a Professor or Lecturer holding no degree, such degree, not higher than that of Master, as the Council may determine.

2. The Council is authorised, if it thinks fit, to grant to any other officer of the University such degree, not higher than that of Master, as it may determine, but no such degree shall be conferred until a report thereon has been received from the Senate.

3. No Medical degree shall be conferred under either of the above provisions (1) and (2) upon a person who does not already possess a registrable medical qualification; and no person, in virtue of a degree conferred under either of these provisions, shall be allowed to proceed to a degree higher than that to which he has been admitted.

XIV. JOINT MATRICULATION BOARD AND JOINT COMMITTEES

The Council is hereby empowered to elect annually, or as may be required:

1. Five members of the Joint Matriculation Board of the Universities of Manchester, Liverpool, Leeds, and Sheffield.
2. Three members of a Joint Committee of the Universities of Manchester, Liverpool, and Leeds, to consider objections which may be raised by one or more of those Universities, to Statutes or Ordinances proposed by any of them, or by the University of Sheffield.

XV. DIPLOMAS

Diplomas shall be granted by the University, in such subjects as the Council may from time to time determine, to students who pursue the courses of study and pass the examinations prescribed.

The Council is empowered to make from time to time Regulations under which such diplomas shall be awarded.

The award of diplomas under the provisions of this Ordinance is delegated to the Senate.

XVI. REGULATIONS FOR PROCEDURE

The Council, Senate, Faculties, Boards of Faculties, and Convocation are hereby empowered to enact Regulations for the conduct of their business and that of their Committees, subject to the provisions of the Charter and Statutes.

XVII. FEES

The Council is hereby empowered, after giving the Senate an opportunity of reporting thereon, to appoint such Registration, Examination, Class, Laboratory, and other

ees to be paid by students and others as the Council may from time to time determine, and to increase, reduce or abolish the same.

XVIII. REGULATIONS FOR EXAMINATIONS

Subject to the provisions of the Charter, Statutes, and Ordinances of the University, the Council is hereby empowered to adopt regulations, or to delegate to the Senate the making of regulations, as to the subjects, times, modes, and standards of the examinations.

XIX. ADMISSION TO EXAMINATIONS

Before admission to any examination candidates must pay the examination fee. The admission of all students to the examinations of the University shall be subject to the approval of the Vice-Chancellor.

XX. EXTERNAL EXAMINERS

The Council is hereby empowered to appoint, on the recommendation of the Senate, such External Examiners on such conditions as to tenure of office, remuneration, and otherwise as it may from time to time determine.

XXI. PRIZES

The Council is hereby empowered, upon report from the Senate, to institute such class and other prizes as it may from time to time determine, and to vary their value and to abolish the same.

XXII. EXAMINATION OF SCHOOLS, AND EXTENSION LECTURES

The Senate is hereby empowered to examine and inspect schools and other educational institutions, and to provide lectures and instruction for persons not members of the University under such Regulations as the Council may from time to time adopt. The Senate is empowered to award certificates in connection with lectures and instruction for persons not members of the University.

XXIII. TENURE OF OFFICE OF DEANS OF FACULTIES

Deans of Faculties shall be elected for periods not exceeding two years at a time.

XXIV. TENURE OF OFFICE OF ADDITIONAL MEMBERS OF THE SENATE

Such additional Members of the Senate of the University as may be appointed by the Court under Statute V. shall be appointed for one year only, but shall be re-eligible at the end of each year.

XXIV. REGISTER OF CONVOCATION

1. The Chancellor, the Vice-Chancellor, the Pro-Vice-Chancellor, the members of the Senate and the Lecturers shall be registered as members of Convocation without payment of any fee, and their names shall be continued upon the Register so long as they retain their qualifying offices.

2. Graduates who have been admitted to degrees of this University by reason of their having pursued courses of study in the Yorkshire College, and having been admitted to degrees of other Universities or to the Associateship of the Yorkshire College, shall be entitled to be registered immediately as life members of Convocation without payment of any further fee.

3. All persons admitted to degrees of this University prior to June 1st, 1926, shall be entitled to be registered as members of Convocation upon payment of a fee of 10s. 6d.

4. Every person admitted to a degree (other than an Honorary degree) of this University on or after June 1st, 1926, shall, unless already a member of Convocation, be required to pay prior to graduation, a fee of £1, which fee shall entitle the graduate to be registered as a member of Convocation.

5. All Honorary graduates shall be entitled to be registered as members of Convocation on payment of a fee of 10s. 6d.

XXVI. COMMUNICATIONS FROM COUNCIL TO CONVOCATION

Convocation shall receive from the Council the draft of any Ordinance proposed which, in the opinion of the Council, would affect the status, position, rights, or privileges of Convocation or the members thereof, and further Convocation, if it so desires, may record its

opinion on any draft Ordinance so submitted within one month from the date at which it has been received, and such opinion when recorded shall be taken into consideration by the Council.

**XXVII. WAIVING OF PRESENT REQUIREMENTS
AS TO CERTAIN UNIVERSITY EXAMINATIONS
IN THE CASE OF APPROVED STUDENTS ON
NATIONAL SERVICE**

This clause lapsed on the expiration of twelve months from the end of the war.

XXVIII. AEGROTAT DEGREE .

If a candidate be prevented by illness or other sufficient cause from attending the whole or part of an examination for a degree, or from presenting any dissertation or thesis which may be required in connexion with such examination, the Senate, upon report from the Internal and External examiners concerned and upon such further evidence as they shall think fit, may if satisfied, thereupon treat him as a successful candidate in such examination, or impose such conditions as they think fit the fulfilment of which shall be precedent to such treatment ; provided always that a candidate in an examination for a degree with Honours shall not be placed in a class, and provided also that nothing in this Ordinance shall apply to the degrees of Medicine and Dental Surgery.

The Senate, on the recommendation of the Board concerned may allow a student whose course of study has been interrupted by illness or other sufficient cause, to defer presenting himself for the examination in any Honours School for such period as is thought fit

THE UNIVERSITY OF LEEDS

Visitor

His Majesty THE KING.

Chancellor

His Grace THE DUKE OF DEVONSHIRE, K.G., G.C.M.G.,
G.C.V.O., LL.D.

Pro-Chancellor

Colonel CHARLES HAROLD TETLEY, D.S.O., T.D., M.A.

Vice-Chancellor

Sir JAMES BLACK BAILLIE, O.B.E., M.A., D.Phil., LL.D., J.P.

Pro-Vice-Chancellor

Professor JOHN STRONG, C.B.E., M.A., LL.D., F.R.S.E.

Treasurer

The Hon. RUPERT EVELYN BECKETT.

Dean of the Faculty of Arts

Professor JOHN DAVID IVOR HUGHES, M.A., B.C.L.

Dean of the Faculty of Science

Professor ALBERT GILLIGAN, D.Sc.

Dean of the Faculty of Technology

Professor NORMAN MEDERSON COMBER,
D.Sc., A.R.C.S., F.I.C.

Dean of the Faculty of Medicine

Professor JOHN KAY JAMIESON, M.B., C.M.

Accountant

EDWIN JOSEPH BROWN, B.Com., A.L.A.A.

Clerk to the Senate

FREDERICK TALBOT BAINES, B.A.

Registrar

ARCHIBALD EDWARD WHEELER, M.A.

THE COURT

The CHANCELLOR

The PRO-CHANCELLOR

The VICE-CHANCELLOR

The TREASURER

Members Nominated by the Crown

The Right Hon. LORD AIREDALE, London
 The Right Rev. THE LORD BISHOP OF RIPON, D.D., Ripon
 THOMAS EDMUND HARVEY, M.A., Leeds

Members Elected by the Court

The Most Rev. and Rt. Hon. The LORD ARCHBISHOP OF YORK,
 D.LITT., LL.D., Bishopthorpe
 Mrs. CURRER BRIGGS, Leeds
 HERBERT DENISON, Leeds
 Major JOHN WILLIAM DENT, LL.D., Wetherby
 DAVID FORSYTH, M.A., D.Sc., LL.D., Leeds
 FRANK FOUNTAIN, Leeds
 GEORGE GARNETT, Apperley Bridge
 C. G. GIBSON, M.P., Leeds
 THOMAS W. PAUL, Leeds
 Emeritus Professor ARTHUR SMITHELLS, C.M.G., D.Sc., F.R.S.,
 London

Members for Life

The Right Hon. THE EARL OF MEXBOROUGH, Helmsley
 The Right Hon. THE VISCOUNT MOUNTGARRET, Ripley,
 Harrogate
 The Right Hon. VISCOUNTESS COWDRAY, London
 The Right Hon. LORD GRIMTHORPE, Malton
 The Right Hon. LORD SOMERLEYTON, K.C.V.O., Somerleyton,
 Lowestoft
 The Right Hon. LORD IRWIN, M.A., LL.D., G.C.S.I., G.C.I.E.,
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*Lecturer in
Textile Industries :* Vacant.

*Lecturer in Yarn
Manufacture :* THOMAS HOLLIS, 155, Hyde Park Road.

*Lecturer in Cloth
Structure and Weaving
Mechanism :* ALEXANDER YEWDALL, Jesmond, Moor Drive, Headingley.

*Lecturer in
Textile Testing :* FOSTER PICKLES, A.T.I., 83, Grange Road, Allerton, Bradford.

*Lecturer in Textile
Chemistry :* J. B. SPEAKMAN, D.Sc., *Manchester*, F.I.C., 8, St. Mark's Terrace, Woodhouse Lane.

*Lecturer in
Textile Physics :* W. T. ASTBURY, B.A., *Cambridge*, 189, Kirkstall Lane, Headingley.

Assistants in

Textile Research :

H. J. WOODS, B.Sc., *Oxford*, 12, Clarendon Place.

N. H. CHAMBERLAIN, Ph.D., *Leeds*, 4, Buckingham Mount, Victoria Road, Headingley.

Assistant Lecturer in

Textile Design :

WILFRID A. FARLEY, 8, Miles Hill View, Scott Hall Road, Chapel Allerton.

Assistant Lecturer in

Cloth Analysis :

GEORGE PRIESTLEY, 23, Regent Park Terrace, Hyde Park.

Museum Assistant and

Assistant Designer

for Figured Fabrics : Miss C. BENTON, 10, Richmond Road, Headingley.

Overlookers—

Weaving : G. APPEYARD.

Weaving (Asst.) E. BOLTON.

Weaving (Pattern) : H. P. HIGGINS.

Cloth Finishing : H. WOOD.

Woolen Spinning : J. PONTEFRACT.

Worsted Spinning : A. ASHWORTH.

Continental : Vacant.

Instrument Maker

and Draughtsman : Vacant.

Director of

Research Students

at Torridon :

S. G. BARKER, Ph.D., *Berlin* (Director of the Wool Industries Research Association).

Director of Silk

Research Students :

W. S. DENHAM, D.Sc., F.I.C. (Director of the British Silk Research Association).

Colour Chemistry

and Dyeing

(Endowed by the Clothworkers' Company of the City of London).

Professor :

FREDERICK M. ROWE, D.Sc., *Leeds*. F.I.C., "Brentwood," Ashleigh Road, West Park.

Lecturer in Colour

Chemistry :

R. B. FORSTER, A.R.C.S.I., Ph.D., *Berlin*, D.Sc., *National Univ. of Ireland*, F.I.C., 9, Churchwood Avenue, Headingley.

Lecturer in Dyeing :

PERCIVAL E. KING, A.I.C., F.T.I., "High Mead," Harrogate Road, Alwoodley.

Assistant Lecturer :

E. J. CROSS, B.Sc., *London*, The University, Leeds.

Research Assistant : A. T. PETERS, Ph.D., *Manchester*, "Springhill," Stonegate Road, Meanwood.

Research Assistant in Dyeing : G. H. GILES, B.Sc., *Leeds*, 14, Blenheim Avenue.

Professor's Private Assistant : A. KERSHAW.

Museum Curator : Miss O. M. WILCHER, Elladene, Kirkstall Lane.

Mechanic : E. H. J. CLISSOLD.

Leather Industries

(Assisted by the Skinners' Company of the City of London and by Members of the Leather Trades).

Professor : DOUGLAS McCANDLISH, M.Sc., *Leeds*, 152, Otley Road.

Lecturers : W. R. ATKIN, M.Sc., *Leeds*, "Ashfield," Heckmondwike.

F. C. THOMPSON, M.Sc., *Leeds*, 16, Springfield Mount.

Research Assistant : F. SINGLETON, B.Sc., *London*, A.I.C., 25, St. Michael's Road, Headingley.

Special Assistant : Vacant.

Workman Assistant : J. S. RUSHWORTH.

Procter International Research Laboratory

(Endowed in 1914 by public subscription to commemorate the services rendered by the late Professor H. R. Procter to Science and the Leather Industry).

Honorary Director : Vacant.

Research Assistant : F. C. THOMPSON, M.Sc., *Leeds*, 16, Springfield Mount.

Agriculture

Professor and Head of Department : ROBERT S. SETON, B.Sc., *Edinburgh*, 2, Grosvenor Terrace, Headingley.

Professor of Agricultural Chemistry : N. M. COMBER, D.Sc., *London*, A.R.C.S., F.I.C., "Broomfield," Clarence Road, Horsforth.

Lecturers in Agriculture : G. C. A. ROBERTSON, M.C., M.A., B.Sc., *Aberdeen*, 33, Kensington Terrace, Hyde Park.
One vacancy.

Assistant Lecturers and Demonstrators in Agriculture :

T. L. BYWATER, B.Sc., *Wales*, 67, Cardigan Road.

*District Lecturers
in Agriculture :*

- H. I. MOORE, B.Sc., *Leeds*, Dip. Agric.,
Cantab., Hazelgrove, Sandhills, Thorner,
Leeds.
- J. STRACHAN, M.A., B.Sc., *Aberdeen*,
N.D.A., "Glencairn," Barrow Lane,
Hessle, near Hull.
- H. THOMPSON, B.Sc., *Leeds and Victoria*,
Carleton, near Pontefract.
- J. ROBB, B.Sc., *Aberdeen*, Loftburn,
Carleton, Skipton.
- D. H. FINDLAY, B.Sc., *Glasgow*, N.D.A.,
N.D.D., Coneysthorpe, Welburn, York.
- W. S. GIBSON, B.Sc., *Leeds*, 20, Fountains
Terrace, Ripon.
- W. E. GELLING, B.Sc., *Leeds*, N.D.A.,
11, Fairfax Avenue, Selby.
- A. B. BATES, B.Sc., *Leeds*, N.D.A., 5,
Arncliffe Terrace, Northallerton.
- W. W. BALLARDIE, B.Sc., *Dunelm*,
N.D.D., 58, Market Place, Richmond.
One vacancy.

*Assistant Lecturer
(Agricultural
Engineering) .*

M. MACKAY, B.Sc., *Edinburgh*,
A.M.I.C.E., Brunswick House, The
Stray, Harrogate.

*Lecturer in Dairy
Husbandry :*

J. MCGREGOR, B.Sc., *Glasgow*, N.D.A.,
N.D.D., Linnhurst, The Drive, Adel.

*Assistant Lecturers in
Dairy Husbandry :* Two vacancies

*Assistant
Instructresses
in Dairying :*

Miss H. CRAWFORD, N.D.D., The
University, Leeds.
Miss E. M. CROSSLEY, N.D.D., Roche
House, Wetherby.

*Lecturer in
Agricultural Chemistry
and Advisory
Chemist :*

H. TREFOR JONES, M.Sc., *Wales*, A.I.C.,
3, Alberta Avenue, Chapel Allerton.

*Assistant Lecturers
in Agricultural
Chemistry :*

J. S. WILLCOX, B.Sc., *London*, A.I.C.,
2, Clarkson View, Hyde Park.
C. E. MARSHALL, Ph.D., *Manchester*,
45, Hartley Avenue, Hyde Park.

**Lecturer in
Agricultural Botany
and Advisory
Mycologist :**

W. A. MILLARD, D.Sc., *Bristol*, "Highfield," 30, North Park Avenue, Roundhay.

Lecturer in Agricultural Botany :

S. BURR, M.Sc., *Leeds*, The Bungalow, Hawkesworth Road, Horsforth, Leeds.

**Assistant Lecturers in
Agricultural Botany :**

A. POWELL JONES, M.Sc., *Wales*, 10, St. Michael's Terrace, St. Michael's Road, Headingley.

C. H. CHALMERS, B.Sc., *Edinburgh*, N.D.A., 43, Richmond Avenue, Headingley.

Demonstrators in

Agricultural Botany : Miss D. M. TURNER, B.Sc., *Leeds*, Oxley Hall, Far Headingley.
One vacancy.

**Demonstrator in
Agricultural
Bacteriology :**

Vacant.

**Lecturer in
Agricultural Zoology
and Advisory
Entomologist :**

T. H. TAYLOR, M.A., *Royal Univ. of Ireland*, 47, University Road.

**Assistant Lecturer in
Agricultural Zoology :**

L. R. JOHNSON, B.Sc., *Leeds*, 7, Montpelier, Hyde Park.

**Lecturer in Veterinary
Hygiene :**

H. G. BOWES, F.R.C.V.S., "Sherwood," Ancaster Road, Far Headingley.

**Lecturer in Agricultural
Economics :**

A. G. RUSTON, B.A., D.Sc., *Leeds*, 37, The Drive, Adel, Leeds.

**Assistant Lecturer in
Agricultural
Economics :**

D. WITNEY, B.Com., *Leeds*, 15, St. John's Terrace, Belle Vue Road.

**Research Assistant
in Agricultural
Economics :**

H. E. NICHOLS, B.Sc., *Leeds*, 4, Moorland Road, Hyde Park.

**Student Assistants
in Agricultural
Economics :**

T. E. MILLER, N.D.A.
One vacancy.

Assistant Lecturer in

Horticultural Botany: J. GRAINGER, Ph.D., Leeds, Brocken, Heathfield, Farrar Lane, Adel.

Instructors in Practical

Horticulture :

J. W. EVES, 14, Park Mount, Kirkstall.
W. LODGE, 7, Ebberston Terrace.

F. HAWKINS, 1, St. Margaret's Road, Horsforth.

R. DUNCAN, 112, Hyde Park Road.

One vacancy.

Lecturer and

Demonstrator in

Poultry Husbandry: C. W. GOODE, N.D.A., N.D.D., 12, Beaumont Avenue, Street Lane, Roundhay.

Assistant Lecturers in

Poultry Husbandry : Miss M. J. CARTER, B.Sc., Birmingham, N.D.P.

Miss I. McL. MILLAR, N.D.D., c/o Mrs. Masterman, Copmanthorpe, York.

Instructor in

Farriery :

Vacant.

Instructor in

Bee-Keeping :

W. HAMILTON, 13, Hollin Park Terrace, Roundhay.

Instructress in

Rural Housecraft .

Miss W. F. JOLLY, Dip. National School of Cookery, Newton Hill, 216, Chapel-town Road.

Assistant for

Administration :

R. H. DRUMMOND, M.A., Oxford, B.Sc., London, "Chollacott," St. John's Avenue, Thorner.

Chief Clerk :

E. W. DYSON, 5, Manor Drive, Headingley,

Assistants :

Miss D. MITCHELL, 59, Upland Crescent, Harehills.

Miss M. E. PICKLES, Beechurst, Halton.

Miss E. GLASSFIELD, 20, Mayville Road, Cardigan Lane.

Miss L. H. SHARPER, Ivy Croft, Wakefield Road, Garforth, near Leeds.

Miss E. MITCHELL, 29, Blenheim Terrace.

Costings Clerks :

Miss E. C. MABBOTT, Chestnut Avenue, Cross Gates.

Miss B. BELL, 53, Mount Preston.

Miss M. MORRIS, Branksome, Grange Drive, Armley.

MEDICINE

Dean of the Faculty
Professor JAMIESON.

Academic Sub-Dean
MATTHEW J. STEWART,* M.B., Ch.B., F.R.C.P.

Clinical Sub-Dean
P. J. MOIR, M.C., M.B., Ch.B., F.R.C.S.

Anatomy

Professor : JOHN KAY JAMIESON, M.B., C.M.,
Edinburgh, School of Medicine.

Lecturer : A. J. E. CAVE, M.B., Ch.B., *Manchester*,
F.Z.S., 24, Brownberrie Avenue, Hors-
forth.

Demonstrator : Vacant.

Honorary
Demonstrator : W. CUTHBERT MORTON, C.B.E., M.A.,
M.D., *Edinburgh*, 34, Headingley Lane.

Honorary Demonstrator
in Anatomy for

Dental Students : R. B. TASKER, M.C. L.D.S., 134, Albion
Street.

Physiology (See also Faculty of Science).

Professor of
Physiology : B. A. McSWINEY, B.A., Sc.D., M.B., B.Ch.,
Dublin, 5, Thornfield Road, West Park.

Reader in
Pharmacology : A. S. G. HUGGETT, D.Sc., Ph.D., M.B.,
B.S., *London*, M.R.C.S., L.R.C.P.,
"Stoneycroft," Hollin Gardens, Far
Headingley.

Lecturers in
Physiology : G. WINFIELD, M.A., *Cambridge*, 45,
Sholebroke Place, Chapeltown.
G. L. BROWN, M.Sc., M.B., Ch.B.,
Manchester, 106, Clarendon Road.

Lecturer in
Bio-Chemistry : A. WORMALL, D.Sc., *Leeds*, A.I.C.,
St Malo, Station Road, Scholes.

Demonstrator in
Physiology : W. R. SPURRELL, B.Sc., M.S., *London*,
F.R.C.S., "Applegarth," High Street,
Boston Spa.

* See note under heading "Clinical Lecturers" on p. 104.

*Demonstrator in
Bio-Chemistry :*

S. J. HOPKINS, B.Sc., *London*, Devonshire
Hall, Headingley.

Honorary

Demonstrator :

E. R. FLINT,* M.B., Ch.B., *Leeds*, F.R.C.S.,
30, Park Square.

Research Assistants

Mrs. H. D. DICKINSON, M.A., *Cambridge*,
M.R.C.S., L.R.C.P., 31, Cromer Terrace.
J. S. HARRISON, 29, Stainbeck Street,
Meanwood.

Temporary

Research Assistant :

Miss E. M. KILLICK, B.Sc., M.B., Ch.B.,
Leeds, 37, Richmond Mount, Headingley.

*Professor's Private
Assistant :*

C. C. N. VASS, Ph.D., M.Sc., *Leeds*, 36,
Cliff Road.

Clerk :

Miss D. HUMPHREYS-EDWARDS, 233,
Hyde Park Road.

Pathology and Bacteriology

*Professor of
Pathology, and Head
of Department :*

MATTHEW J. STEWART,* M.B., Ch.B.,
Glasgow, F.R.C.P., 3, Cavendish Road.

Brotherton

*Professor of
Bacteriology and
City Bacteriologist :*

J. W. McLEOD, O.B.E., M.B., Ch.B.,
Glasgow, "Spenthorn," North Parade,
West Park.

*Professor of
Experimental
Pathology and
Director of Cancer
Research :*

R. D. PASSEY, M.C., M.D., B.S., D.P.H.,
London, Lumby Hall, South Milford.

Reader in Clinical

Chemical Pathology :

F. S. FOWWEATHER, M.D., M.Sc.,
D.P.H., *Liverpool*, F.I.C., 11, Gledhow
Wood Grove, Roundhay.

Reader in

Experimental

Pathology and

Assistant Director of

Cancer Research :

J. S. YOUNG, M.C., M.A., B.Sc., M.D.,
Glasgow, 8, North Hill Court, Head-
ingley.

* See note under heading "Clinical Lecturers" on page 104.

- Lecturer in Bacteriology :* J. GORDON, M.D., D.P.H., *Leeds*, 17, Victoria Terrace, Belle Vue Road.
- Lecturer in Pathology and Pathologist to St. James's Hospital :* C. J. POLSON, M.D., *Birmingham*, M.R.C.P., M.R.C.S., 33, Vernon Road.
- Lecturer in Pathology :* R. CARMICHAEL, M.B., Ch.B., *Edinburgh*.
- Lecturer in Dental Pathology and Bacteriology :* J. G. SYKES, B.Ch.D., St. Mary's House, Bootham, York.
- Lecturer on Pathology of Industrial Diseases :* P. L. SUTHERLAND, M.B., Ch.B., D.Sc., *Glasgow*, County Hall, Wakefield.
- Bio-Chemist (Experimental Pathology):* R. E. HAVARD, B.A., B.M., B.Ch., *Oxford*.
- Part-time Research Assistant :* W. R. SPURRELL, B.Sc., M.S., *London*, F.R.C.S., "Applegarth," High Street, Boston Spa.
- Temporary Research Assistant :* ARTHUR LEESE, B.A., *Cambridge*.
- Cancer Research Fellows :—*
Edward Allen Brotherton Fellowship : Mrs. K. J. BONSER, M.D., *Manchester*, L.R.C.P., M.R.C.S., 978, Scott Hall Road, Moortown.
- William Aykroyd Fellowship :* L. P. KENDAL, M.Sc., *Manchester*.
- Riley Smith Fellowship :* I. BERENBLUM, B.Sc., M.D., *Leeds*, 6, Kelso Road.
- Bertram Parkinson Fellowship :* Vacant.
- Demonstrators in Pathology and Bacteriology :* Miss E. M. HICKMAN, M.Sc., M.D., *Leeds*, 32, Cavendish Road.
 F. C. HAPPOLD, Ph.D., *Manchester*, 28, Balbec Avenue, Headingley.

* See note under heading "Clinical Lecturers" on page 104

University Staff

J. G. THOMSON, M.B., Ch.B., *Aberdeen*,
33, Vernon Road.

J. O TERRY, M.B., Ch.B., *Leeds*, 28,
Hyde Terrace.

Part-time

*Demonstrator in
Bacteriology :*

Miss B. WHEATLEY, M.B., Ch.B., *Leeds*,
Glenwood, Horsforth.

*Honorary Fellow
in Pathology :*

R. CATTLEY, M.B., C.M., *Edinburgh*.
B.Sc., D.P.H., *Cambridge*, 43, Main
Avenue, Heworth, York.

Honorary

*Demonstrator in
Medical Pathology :*

J. le F. C. BURROW,* M.B., *Edinburgh*,
M.R.C.P., 30, Park Square.

Honorary

*Demonstrator in
Surgical Pathology :*

A. RICHARDSON,* M.B., B.S., *London*,
F.R.C.S., 37, Park Square.

Honorary

*Demonstrator in
Pathology :*

Mrs. CLARA STEWART, M.B., B.S.,
London, 3, Cavendish Road.

*Professor's Private
Assistant*

(Bacteriology) :

L. HOYLE, M.B., Ch.B., *Leeds*.

Clerk :

Miss M. RIFKIN, 35, Mexborough Avenue.

Medicine

*Professor of
Medicine and Head
of Department :*

W. H. MAXWELL TELLING,* M.D.,
London, F.R.C.P., 29, Park Square.

*Professor of Clinical
Medicine :*

G. W. WATSON,* M.D., *London*, F.R.C.P.,
42, Park Square.

*Professor of
Pharmacology and
Therapeutics :*

R. A. VEALE,* B.A., *Oxford*, M.D., B.S.,
London, F.R.C.P., 37, Park Square.

*Professor of Diseases
of Children :*

C. W. VINING, M.D., *London*, F.R.C.P.,
D.P.H., 31, Park Square.

Lecturer in

*Pharmacy and
Materia Medica :*

J. J. ANNING, L.M., S.S.A., Hadley,
Grove Lane, Headingley.

* See note under heading "Clinical Lecturers" on p. 104.

*Lecturer in Diseases
of the Skin :*J. T. INGRAM,* M.D., *London*, M.R.C.P.,
27, Park Square.*Lecturer in
Tuberculosis*N. TATTERSALL, M.D., *London*, 74, New
Briggate.*Lecturer in Dietetics
and Metabolic
Medicine :*W. MACADAM, M.A., B.Sc., M.D., Ch.B.,
Glasgow, M.R.C.P., 40, Park Square.*Honorary
Demonstrator :*

Vacant.

*Honorary
Demonstrator in
Pharmacology and
Therapeutics :*H. H. MOLL, M.D., *Rome*, M.B., Ch.B.,
Leeds, M.R.C.P., Cromer Hall.*Medical Tutor
and Registrar :*

Vacant.

*Part-time
Medical Tutor :*H. H. MOLL, M.D., *Rome*, M.B., Ch.B.,
Leeds, M.R.C.P., Cromer Hall.**Surgery***Professor of Surgery
and Head of
Department :*J. F. DOBSON,* M.S., *London*, F.R.C.S.,
40, Park Square.*Professor of
Clinical Surgery :*HAROLD COLLINSON,* C.B., C.M.G.,
D.S.O., T.D., M.B., M.S., *London*,
F.R.C.S., 27, Park Square.*Director of
Surgical Research :*L. R. BRAITHWAITE,* M.B., Ch.B.,
Victoria and Leeds, F.R.C.S., 45, Park
Square.*Lecturer in**Orthopædic Surgery :* S. W. DAW,* M.B., B.S., *London*, F.R.C.S.,
24, Park Square.*Surgical Tutors :*G. ARMITAGE, M.C., M.B., Ch.M.,
Leeds, F.R.C.S., Elmfield Lodge, Cum-
berland Road, Headingley.
L. N. PYRAH, M.B., Ch.M., M.Sc., *Leeds*,
F.R.C.S., 6, Croft Terrace, New Farnley.

* See note under heading "Clinical Lecturers" on page 104.

**Obstetrics and
Gynæcology**

*Head of Department
and Professor of
Gynaecology :*

W. GOUGH,* B.Sc., M.B., B.S., *London*,
F.R.C.S., 31, Park Square.

*Professor of
Obstetrics*

A. M. CLAYE,* M.S., *Leeds*, F.R.C.S.,
L.R.C.P., 25, Park Square

*Tutor in Obstetrics
and Gynæcology :*

B. L. JEAFFRESON, M.D., *London*
F.R.C.S., L.R.C.P., 42, Hyde Terrace.

Honorary

*Demonstrator in
Clinical Obstetrics :*

Vacant.

*Lecturer in
Midwifery :*

Mrs. RHODA ADAMSON,* M.D., B.S.,
London, 24, Park Square.

Honorary,

*Demonstrator in
Obstetrics and
Gynæcology :*

Vacant.

Public Health

*Professor of the
Administration of
Public Health :*

J. JOHNSTONE JERVIS, M.D., *Edin-
burgh*, D.P.H., *London*, 2, Oakfield Ter-
race, Headingley.

Honorary

Demonstrator :

A. B. WILLIAMSON, M.A., B.Sc., M.D.,
Edinburgh, D.P.H., 12, Market Buildings,
Vicar Lane.

Forensic Medicine

Professor :

F. W. EURICH, M.D., C.M., *Edinburgh*,
2, Belle Vue, Manningham Lane,
Bradford.

Honorary

*Demonstrator in
Toxicology :*

Vacant.

Ophthalmology

Lecturer :

H. LEE,* B.A., M.B., B.Ch., *Cambridge*,
F.R.C.S., 45, Park Square.

Otology

Lecturer :

E. W. BAIN,* M.B., B.S., *London*, F.R.C.S.,
45, Park Square

* See note under heading "Clinical Lecturers" on p. 104.

Mental Diseases*Professor :*

J. SHAW BOLTON, M.D., D.Sc., *London*,
F.R.C.P., West Riding Mental Hospital,
Wakefield.

**Radiology and
Electro-Therapeutics***Lecturers :*

H. B. SCARGILL, M.B., B.S., *London*,
26, Park Square.
G. COOPER, B.A., M.D., B.Ch., *Queen's
University, Belfast*, B.A.O., D.M.R.E.,
Cambridge, 41, Park Square.

Anæsthetics*Lecturer :*

S. T. ROWLING, M.D., *Leeds*, 15, Blenheim
Terrace.

Vaccination*Instructor :*

F. W. M. GREAVES, M.D., D.P.H., *Leeds*,
98, Roundhay Road.

Research Assistants

(*under Agreement
with D.S.I.R.*) :

K. E. COOPER, Ph.D., *Leeds*, 24, Upland
Road, Harehills.
J. N. ASHLEY, B.Sc., *Birmingham*, Ph.D.,
Manchester, A.I.C., 25, St. Michael's
Road, Headingley.

CLINICAL LECTURERS

(*In addition to those of the above Professors, Lecturers and
Honorary Demonstrators whose names are marked with an
asterisk to denote that they take part in the Clinical teaching.*)

Medicine

W. MacADAM, M.A., B.Sc., M.D., Ch.B.,
Glasgow, M.R.C.P., 40, Park Square.

Surgery

P. J. MOIR, M.C., M.B., Ch.B., *Glasgow*,
F.R.C.S., 29, Park Square.
H. W. SYMONS, M.B., Ch.B., *Leeds*,
F.R.C.S., 27, Park Square.
D. CHAMBERLAIN, M.B., Ch.M., *Leeds*,
F.R.C.S., 43, Park Square.

**Obstetrics and
Gynæcology**

W. MCGREGOR YOUNG, M.A., M.D.,
Glasgow, 14, Eldon Terrace.

Ophthalmology

S. D. LODGE, F.R.C.S., 25, Park Square.

Otology

W. M. MUNBY, Ch.M., *Edinburgh*, F.R.C.S.,
25, Park Square.

Venereal Diseases

J. P. BIBBY, M.B., Ch.B., *Leeds*, M.R.C.P.,
24, Park Square.

Infectious Diseases J. S. ANDERSON, M.A., M.D., D.P.H.,
Aberdeen, Seacroft Hospital.

Dean's Clerk S. TAYLOR, 33, Airlie Avenue, Harehills.
Janitor E. PATRICK, 3, Warwick Place.

SCHOOL OF DENTISTRY

*Professor of Clinical
Dental Surgery and
Warden of the Dental
School and Hospital :* T. TALMAGE READ, F.R.F.P.S., *Glasgow,*
L.R.C.S., L.R.C.P., *Edinburgh, L.D.S.,*
Glasgow.

Dental Surgery
Lecturer : C. HOLLAND CHILD, M.B.E., D.D.S.,
L.D.S., 40, Park Square.

**Operative Dental
Surgery**
Lecturer : STEPHEN D. HEY, L.D.S., 32, Park
Square.

**Dental Anatomy
and Physiology**
Lecturer : J. W. MAWER, L.D.S., 13, Reginald Ter-
race.

*Honorary
Demonstrator
in Dental
Histology :* G. H. H. RUSSELL, M.B., Ch.B., L.D.S.,
Manchester, 37, Park Square.

Dental Mechanics
Lecturer : W. SINTON THORBURN, M.Sc., *Leeds,*
L.D.S., 13, Reginald Terrace.

Dental Metallurgy
Lecturer : W. LOWSON, B.Sc., *London and Leeds,*
F.I.C., 50, Chapel Lane, Headingley.

Dental Radiology
Lecturer : H. B. SCARGILL, M.B., B.S., *London, 26,*
Park Square.

Orthodontia
Lecturer : G. L. WILKINSON, M.R.C.S., L.R.C.P.,
L.D.S., 31, Park Square.

**Clinical Dental
Surgery****Clinical Lecturers:**

- WALTER MARSTON, M.Sc., *Leeds*, L.D.S.
12a, Clarendon Road.
- STEPHEN D. HEY, L.D.S., 32, Park
Square.
- JAMES W. MAWER, L.D.S., 13, Reginald
Terrace.
- W. SINTON THORBURN, M.Sc., *Leeds*,
L.D.S., 13, Reginald Terrace.
- G. D. ILES, L.D.S., West Town, Dewsbury.
- G. L. WILKINSON, L.R.C.P., M.R.C.S.,
L.D.S., 31, Park Square.
- J. K. CRAWFORD, L.D.S., 10, Park
Square.
- C. HOLLAND CHILD, M.B.E., D.D.S.,
L.D.S., 40, Park Square.
- G. H. H. RUSSELL, M.B., Ch.B.,
Manchester, L.D.S., 37, Park Square.
- J. P. COCKER, L.D.S., Bond Street,
Wakefield.
- J. G. SYKES, B.Ch.D., St. Mary's House,
Bootham, York.
- H. J. RAVENSCROFT, L.D.S., 1, St.
Mark's Terrace.

**Honorary Clinical
Tutors :**

- R. B. TASKER, M.C., L.D.S., 134, Albion
Street.
- J. M. MACRAE, L.D.S., 8, Sunny Bank,
Shipley.
- A. E. SUMMERS, L.D.S., 1, Spencer Place.
- S. H. BRENNAN, L.D.S., 31, Park Square,
Leeds.

**Honorary
Anaesthetists .**

- Miss KATHLEEN WILSON, M.B., Ch.B.,
Leeds, 4, West Hill Terrace, Chapel
Allerton.
- R. G. MELVIN, M.A., M.B., Ch.B.,
Aberdeen, 80, Blackman Lane.

**Tutor in
Mechanical
Dentistry :**

- G. V. WATT, L.D.S., 3, Lidgett Park
Grove, Roundhay.

*Tutor in Clinical
Dental Surgery :*

L. DAVY, L.D.S., "Hazelbrae," The Drive, Roundhay,

*Tutors in Dental
Anatomy and
Dental Surgery :*

J. G. SYKES, B.Ch.D., St. Mary's House, Bootham, York.

H. J. RAVENSCROFT, L.D.S., 1, St Mark's Terrace.

*Assistant
Casualty Officer :*

M. R. HOLLINGS, B.Ch.D.

House Surgeon¹:

E. A. ROGERSON, L.D.S., Allerton Grange, Lidgett Lane, Roundhay.

*Demonstrator in
Prosthetic Dentistry :*

S. SLATER, L.D.S.

*Student
Demonstrators :*

Three Senior Students.

Secretary :

A. BATT, 10, Moor Park Villas, Headingley.

Janitor :

E. J. LANGFORD, 39, Caledonian Street.

TUTORIAL CLASSES

Staff Tutors :

D. STEWART, M.A., *Nat. Univ. of Ireland*, 13, St. Mark's Terrace, Woodhouse Lane.

NORMAN WALKER, 4, Bank View, Chapel Allerton.

J. R. WILLIAMS, B.A., *Leeds*, 8, Calgary Place, Chapel Allerton.

L. G. JOHNSON, B.A., *Sheffield*, "Alorge," Normanby Road, Normanby, Eston, Yorks.

F. J. McCULLPCH, B.A., "Locarno," Park Avenue, Whitkirk.

DAVID G. O. AYERST, B.A., *Oxford*.

University Library

<i>Librarian .</i>	RICHARD OFFOR, Ph.D., <i>London</i> , "Sunnyside," Weetwood Grange Grove, West Park.
<i>Honorary Librarian</i> <i>(Medical School)</i>	Professor M. J. STEWART, M.B., Ch.B., <i>Glasgow</i> , F.R.C.P., 3, Cavendish Road.
<i>Assistant</i> <i>Librarians :</i>	Miss G. WOODWARD, B.A., <i>London</i> , The University, Leeds. F. BECKWITH, B.A., <i>Leeds</i> , 527, The Terrace, Meanwood Road. Miss M. U. ROBINSON, M.A., <i>Oxford</i> , Sandy Bank, Bardsey, nr. Leeds. Miss A. M. O. STEELE, College Hall. Miss D. M. LEAK, B.A., <i>Leeds</i> , West Bank, 65, The Drive, Roundhay.
<i>Library Assistants .</i>	Miss P. M. BRIGGS, 21, Regent Park Terrace, Hyde Park. Miss E. TAIT, Heath House, 60, Somerset Road, Huddersfield. Miss I. COATES, c/o 3, Leicester Place, Blackman Lane. J. W. SCOTT, 71, Headingley Avenue. J. E. TOLSON, 66, Shaftesbury Avenue.
<i>Junior Assistant :</i>	G. O. RANDLE, 56, Raynville Crescent, Armley.

University Parliamentary Constituency

<i>Registration</i> <i>Officer :</i>	F. T. BAINES, B.A., <i>Cambridge</i> , Cragg View, Bramhope.
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University Appointments Board

<i>Secretary :</i>	W. R. GRIST, B.Sc., <i>London</i> , 8, Moor Park Avenue, Headingley.
<i>Clerks :</i>	Miss D. E. CALVERT, 23, Brudenell Mount, Hyde Park. Miss E. DENISON, 17, Stanmore Avenue, Burley.

Tutor of Women Students

Miss DORA M. HIBGAME, M.A., <i>Oxford</i> , Prospect House, Healey Lane, Batley.

Halls of Residence for Women

Oxley Hall

Warden : Mrs. MOORMAN.

Sub-Warden : Miss D. M. TURNER, B.Sc., *Leeds.*

Lyddon Hall

Warden : Miss AGNES B. MARCHBANK.

Sub-Warden : Miss LORNA I. SCOTT, B.Sc., *London.*

College Hall

Warden : Miss JANE HOLGATE, B.A., *Leeds.*

Weetwood Hall

Warden : Mrs. W. O. REDMAN KING, B.Sc., *Leeds.*

Sub-Warden : Miss HILDA PEERS, B.A., *Leeds.*

Halls of Residence for Men

Devonshire Hall

Warden : Professor JOHN STRONG, C.B.E., M.A.,
London, LL.D., St. Andrews, F.R.S.E.

Hostel of the Resurrection, Springfield Mount, Leeds

(Under the Direction of the Community of the Resurrection,
Mirfield)

Warden : The Rev. FRANK BIGGART, M.A.

Cecil Duncombe Observatory

Honorary Curator : Professor A. GILLIGAN, D.Sc., *Leeds.*
F.G.S.

Astronomical

Observer : R. STONELEY, M.A., *Cambridge.*

Meteorological

Assistant : W. PLOWMAN.

Roebuck Stamp Collection

Honorary Curator : E. SOLLY, M.B., D.P.H., Strathlea, 4,
Cold Bath Road, Harrogate.

Ingham Herbarium

Honorary Curator : W. H. BURRELL, F.L.S., Bracondale,
Hall Lane, Horsforth.

Photography

Photographer : J. MANBY, F.R.P.S., 10, Langdale Avenue,
Headingley.

Administrative and General

Vice-Chancellor	Sir JAMES B. BAILLIE, O.B.E., M.A., D.Phil., LL.D., J.P., Bardon Hill, Weetwood Lane, Leeds.
Vice-Chancellor's Secretary :	Miss G. V. M. SELBY, 11, Lifton Place.
Registrar and Secretary	A. E. WHEELER, M.A., <i>Leeds</i> , 16, Regent Park Avenue, Headingley.
Accountant	E. J. BROWN, B.Com., <i>London</i> , A.L.A.A., 24, Hollin Lane, Weetwood Lane.
Clerk to the Senate	F. T. BAINES, B.A., <i>Cambridge</i> , Cragg View, Bramhope.
Senior Assistant Secretary and Chief Clerk	J. J. ILETT, 31, Headingley Mount.
Assistant Secretaries	Miss G. ILLINGWORTH, 4, Moorland Hall, St. John's Terrace. Miss H. S. BENNETT, 7, Beech Grove Terrace.
Assistant Accountant	H. W. MERRELL, 149, Ash Road, Headingley.
Assistant Clerk to the Senate	Miss E. WESTON, 11, Miles Hill Road, Chapel Allerton.
Chief Bookkeeper	J. BELL, 30, Heathfield Terrace, Far Headingley.
Senior Clerks	Miss M. ILLINGWORTH, 4, Moorland Hall, St. John's Terrace (<i>attached to Education Department</i>). Miss D. BOOTH, The Hawthorns, Ferry- bridge. J. T. AITKEN, 28, Estcourt Avenue, Headingley.
Clerks	Miss N. YATES, 18, Vernon Road. Miss D. A. LILEY, 22, Mayville Road, Cardigan Lane. Miss M. SAUNDERS, 16, Mayville Road, Cardigan Lane. Miss M. SPINK, 7, Hall Lane, Potter- newton.

University Staff

III

	Miss M. M. DENISON, 17, Stanmore Avenue, Burley.
	J. RUDSDALE, B.A., <i>London</i> , Moorwood Hall, 2, Lifton Place
	Miss F. G. SENIOR, 72, Pasture Road, Harehills Avenue.
	S. BOOTHMAN, 6, Winchester Place, Armley.
	Miss K. M. ARMISTEAD, L.R.A.M., 7, Carter Terrace, Whitkirk.
	Miss M. STROTHER, South View, Collingham, nr. Leeds
	Miss K. M. WARREN, 27, Brudenell Avenue, Hyde Park.
	Miss S. MOOR, 16, Moor Drive, Far Headingley.
	E. WILLIAMSON, "Northcote," Coal Road, Whinmoor.
Clerk of Works	A. T. WESTROPE, 7, Norwood Road.
<i>Engineer :</i>	R. H. VERITY, 2, Providence Square, Church Lane, Meanwood.
<i>Electrician :</i>	L. PARKER, 83, Clifton Grove, Harehills.
University Janitor	C. E. HILLIARD, 33, University Road.
Superintendent of Women Cleaners	Miss B. SANDH ANDS, 6, Beech Grove Terrace.

University Union, 1931-32

<i>President :</i>	J. HALLER.
<i>Secretary :</i>	
<i>Clerk :</i>	D. T. WRIGHT, Mayfield, Gladstone Street, Normanton.

University Refectory

<i>Manageress .</i>	Mrs. BECK, Becklee, Cottingley Bridge, Bingley.
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School of Medicine Refectory

<i>Manageress :</i>	Mrs. WORTH, 39, Woodland Road, Halton, nr. Leeds.
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External Examiners

Faculty of Arts

Greek : E. S. FORSTER, M.B.E., M.A., F.S.A., Professor of Greek, Sheffield University.

Latin : B. M. CONNALL, M.A., Emeritus Professor of Latin, Leeds University.

English Literature : L. ABERCROMBIE, M.A., Professor of English Literature, Bedford College, London University.

English Language : C. L. WRENN, M.A., Lecturer in English Philology, Oxford University.

French : (To be appointed).

German : (To be appointed).

Hebrew : (To be appointed).

Russian : Sir BERNARD PARES, Director of School of Slavonic Studies, London.

Spanish : W. ATKINSON, M.A., Lecturer in Spanish, Armstrong College, Newcastle-on-Tyne.

History (Modern and Medieval) : (To be appointed).

History (Ancient) : (To be appointed).

Philosophy : J. W. HARVEY, M.A., Professor of Philosophy, Armstrong College, Durham University.

Economics : (To be appointed).

Geography : H. J. FLEURE, D.Sc., Professor of Geography Manchester University.

Education : C. W. VALENTINE, M.A., D.Phil., Professor of Education, Birmingham University.

Law : H. C. GUTTERIDGE, M.A., LL.D., Cassel Professor of Law, London School of Economics.

Music : Dr. E. C. BAIRSTOW, Master of the Music, York Minster.

Faculty of Science

Mathematics : L. J. MORDELL, B.A., M.Sc., F.R.S., Professor of Pure Mathematics, Manchester University.

Statistics : (To be appointed).

Physics : W. L. BRAGG, M.A., M.Sc., F.R.S., Professor of Physics, Manchester University.

Chemistry : J. I. O. MASSON, D.Sc., F.I.C., Professor of Chemistry Durham University

Zoology : D. M. S. WATSON, M.Sc., F.R.S., Professor of Zoology, University College, London.

Botany : (To be appointed).

Geology : (To be appointed).

Faculty of Technology

Civil and Mechanical Engineering : A. H. GIBSON, D.Sc.,
Professor of Engineering, Victoria University of Manchester.

Electrical Engineering : (To be appointed).

Mining Engineering : H. BRIGGS, Ph.D., D.Sc., Professor of
Mining, Edinburgh University.

Gas Engineering : (To be appointed).

Fuel and Metallurgy : C. H. DESCH, D.Sc., F.R.S., Professor of
Metallurgy, Sheffield University.

Colour Chemistry : (To be appointed).

Leather Industries : (To be appointed).

Textile Industries : W. DAVIS, M.A., Professor of Textile
Industries, University College, Nottingham.

Agriculture : J. A. S. WATSON, M.A., Professor of Rural
Economy, Oxford University.

Agricultural Chemistry : (To be appointed).

Agricultural Botany : (To be appointed).

Agricultural Zoology : (To be appointed).

Agricultural Economics : A. BRIDGES, M.A., Agricultural
Economics, Research Institute, Oxford.

Faculty of Medicine

Anatomy : J. S. B. STOPFORD, M.D., Professor of Anatomy,
Victoria University of Manchester.

Physiology : (To be appointed).

Pharmacy, Pharmacology and Therapeutics : (To be appointed).

Pathology : (To be appointed).

Bacteriology : (To be appointed).

Forensic Medicine : S. A. SMITH, M.D., Ch.M., Professor of
Forensic Medicine, Edinburgh University.

Public Health : R. A. LYSTER, M.D., B.Sc., St. Bartholomew's
Hospital, London, E.C.

Medicine : A. J. HALL, M.A., M.D., Professor of Medicine,
Sheffield University.

Surgery : D. P. D. WILKIE, M.D., Ch.M., Edinburgh University

Obstetrics and Gynaecology : W. FLETCHER SHAW, M.D., Pro-
fessor of Obstetrics and Gynaecology, Manchester University.

Nursing : Miss E. M. MUSSON.

Psychological Medicine : Dr. DOUGLAS McRAE, Glengall
Hospital, Ayr, N.B.

Dental Subjects : (To be appointed).

THE
UNIVERSITY OF LEEDS

Session 1931-1932

Faculties of Arts (including Commerce and Law),
Science and Technology

UNIVERSITY TERMS

The University session, or academic year, is divided into three terms as follows :

First Term .. Thursday, October 1st, 1931, to
Saturday, December 19th, 1931.

Second Term Thursday, January 7th, 1932, to
Saturday, March 19th, 1932.

Third Term .. Tuesday, April 26th, 1932, to
Monday, July 4th, 1932.

ADMISSION OF STUDENTS

The classes and laboratories are open to men and women on the same terms. Special arrangements are made to meet the convenience of women students.

Except in cases approved by the Vice-Chancellor, students must have reached the age of 17 before coming to the University.

All candidates for admission to the University are required to give a reference of whom inquiry may be made. Those who are under 19 years of age and have been at a school or other educational institution within one year of their application for admission are required to produce a certificate of good conduct and of fitness for entrance to the University from the Head Master or Head Mistress of the School, or from the Head of the Institution which they have last attended.

In all cases students are urged to consult their Head Master or Head Mistress before presenting themselves for

admission to the University. Premature entry upon a University course is greatly to be deprecated. While the University has not thought fit to raise the minimum age for admission at the present time, such action may be taken in future years, and in the meantime applications from students below 17 will be considered with special care, and power is retained to refuse admission on grounds of immaturity even in the case of those who have passed the Matriculation Examination.

Applications for admission to the University from persons residing out of the United Kingdom, should be sent in not later than June 30th of each year, and must in all cases be accompanied by certificates of good conduct duly authenticated. Overseas students are, in addition, required to produce certificates of identity.

Students are required, prior to admission, to sign a declaration that they will observe the statutes, ordinances, and regulations of the University for the time being in force.

The Vice-Chancellor will admit students on THURSDAY, OCTOBER 1st, from 9.30 a.m. to 12.30 p.m. and from 2 p.m. to 5 p.m., and on FRIDAY, OCTOBER 2nd, from 9.30 a.m. to 12.30 p.m. The Professors and Lecturers will be present to confer with intending students and to give them advice respecting their courses of study. Women students are requested to consult the Dean of Women Students as to their studies before presenting themselves to the Vice-Chancellor. The Accountant will be in attendance to receive the fees and to register students whose courses of study have been duly approved.

All students (excepting those entering for Diploma courses in Agriculture) are expected to register their names on one of the days mentioned above.

REGULATIONS TO BE OBSERVED BY STUDENTS

1. All students in regular attendance who are not living with their parents, or with relatives or personal friends, will be required to reside either at some Hall of Residence or

Hostel approved by the University, or in registered lodgings.* or in lodgings which, if not registered when taken by the student, shall receive the approval of the University. Students taking lodgings which have not been registered are required to report immediately to the Supervisor of Lodgings the address of such lodgings.

2. Students who do not return punctually at the beginning of the term are liable to be refused permission to keep the term. In case of delay in entering, due to illness or other unavoidable cause, a communication must be made to the Vice-Chancellor.

• 3. Regular, punctual, and orderly attendance at lectures, laboratories and departmental examinations is required of every student, in order to obtain certificates of attendance. In the case of persistent neglect of work, repeated failure at examinations, or unreasonable delay in presenting himself for such examinations, a student may be required to withdraw from the University.

4. When a student is absent through illness or other sufficient cause a written explanation must at once be sent to the Clerk to the Senate, who will communicate it to the heads of the departments concerned. Students desiring leave of absence must obtain it from the Vice-Chancellor.

5. Students are required to keep the Registrar informed of their addresses. Any alteration of address must be communicated without delay.

6. A student dismissed for idleness or misconduct will forfeit all fees and privileges.

7. Students are required to replace or repair any apparatus or other property destroyed or damaged by their fault.

8. The Students' Common Rooms are under the management of the University Union, and the Committee of the Union are empowered to impose fines in case of damage done to the property in their charge. An appeal against any decision of the Union may be made to the Vice-Chancellor.

* Women students are not normally expected to live in lodgings. Any student wishing to do so should first consult the Dean of Women Students.

9. All students of the University who are reading for degrees are required to enter their names in the Matriculation Register. On attending at the Office for this purpose, students must produce a certificate of having passed the Matriculation examination or of having been exempted therefrom.

10. No student is permitted, except with the leave of the Vice-Chancellor, to attend any lecture course or laboratory work until he has received from the Accountant his class ticket, which must be presented, before his course of study is begun, to the heads of the departments which he enters.

11. All students are required to present themselves for the departmental examinations in the subjects which they have been taking, and if they fail in these examinations they may be required to repeat their courses of study. In cases of repetition of courses the full fees will be charged.

12. Students are not at liberty to publish, except with the specific consent of the head of the department, the results of research work done in the University, or to publish any matter given in the lectures.

Vacation Study

The Senate desire it to be understood that study is expected from students during vacations. Arrangements are made by which the laboratories are open during a portion of the Long Vacation to students capable of independent work. A nominal fee is charged (see Fees, section (c) (iv)). Application for admission must be made to the heads of departments, with whom the decision as to the suitability of students for admission rests.

In many cases the vacation time of students in technical departments can be most profitably employed in obtaining practical experience in works. Assistance to obtain admission to works will, so far as practicable, be given by the Professors. In other cases, before the vacation begins, Professors and Lecturers will be prepared to make recommendations to students as to the private study which should be carried on during the vacation in preparation for the next session.

Entrance Examinations

ENTRANCE EXAMINATIONS

All students who intend to present themselves as candidates for a degree in the University of Leeds are required, before entering upon their degree course, to produce a certificate of having passed the Matriculation examination conducted by the Joint Matriculation Board of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham, or a certificate of exemption therefrom. The conditions which entitle a student to exemption from the Matriculation examination are fully set forth in the Matriculation syllabus. Such applications for exemption from the Matriculation examination, as are based on special grounds and are not met by the conditions set forth in the Matriculation syllabus, are considered by the Joint Board through its Applications Committee.

The Matriculation examination is held at each University in July and September. Candidates are required to satisfy the examiners at one and the same examination in English Composition and five subjects chosen as follows, and must attain a certain aggregate in these five subjects together with English Composition :

- I. *Either* English Literature *or* History.
 - II. *Either* Mathematics *or* Latin.
 - III. } *Three* other subjects not already taken under I and
 - IV. } II above, chosen from the following list :
 - V. }
- | | |
|---|--|
| 1. English Literature | Mathematics |
| 2. History | Mechanics ¹ |
| 3. Geography | Physics |
| 4. <i>Either</i> Music <i>or</i> Art | Chemistry |
| 5. Greek | 14 Physics-with-Chemistry ² |
| 6. Latin | 15. <i>Either</i> Natural History |
| 7. French | <i>or</i> Botany |
| 8. German | 16. Agricultural Science ³ |
| 9. Spanish <i>or</i> some one other Language ⁴ | |
- approved by the Board.

¹ Candidates who take the subject Mechanics may not take the Mechanics section of the Physics paper.

² Physics-with-Chemistry may not be taken by candidates who take *either* Physics *or* Chemistry *or* Mechanics *or* Agricultural Science.

Agricultural Science may not be taken by candidates who take *either* Physics *or* Chemistry *or* Physics-with-Chemistry.

⁴ Application to present any other language must be made and the fee (including any special fee for this language) paid on or before March 1st.

- Provided that* (a) candidates who take Mathematics under II above must include one of the subjects 5—9 ;
 (b) candidates who take Latin under II above must include one of the subjects 10—16.

Candidates may not enter for more than five subjects chosen from the above list.

Candidates will not be admitted to the courses of study for the degree of Bachelor of Arts unless they have (1) passed in Latin either as part of the Matriculation examination or as a Supplementary subject, or (2) passed with "credit" in Latin in one of the recognised School Certificate examinations, or (3) passed in Latin as a Full or as a Subsidiary subject in one of the recognised Higher School Certificate examinations, provided that translation at sight from Latin into English forms part of the examination.

A complete syllabus of the examination may be obtained from the Secretary, the Joint Matriculation Board, 315, Oxford Road, Manchester, to whom also should be addressed all applications for exemption from the Matriculation examination.

DEGREE COURSES

Candidates for degrees in Arts, Commerce, Law and Science are ordinarily required (a) to have completed not less than three years of study in the University, all of which must be subsequent to the date of passing the Matriculation examination, and (b) to have passed prescribed examinations in the subjects of study. Full particulars of the requirements of the University in these respects will be found in the Departmental Regulations.

FEES*

N.B.—The scales of fees printed herein are applicable to students who commenced courses in the University on or after 1st October, 1930.

Students who commenced courses prior to Session 1930-31 and who are still in attendance at the University, will pay fees under the scale in force at the time of their entry, i.e., Composition Fees (with the exception of the Ph.D. fee), as stated herein, will be reduced by £1 per Session.

All Fees are payable to the Accountant. Cheques should be made payable to "The University of Leeds," and crossed.

* For Medical and Dental Course fees see separate Prospectus or Calendar.

The University reserves the right to revise the fees specified below at any time, whether in the case of new students or those who have already begun their courses.

1. Registration Fee

All students proposing to attend at the University for more than six hours a week, or to attend a course for which a composition fee is charged, are required to pay a Registration Fee of £2 when their application for admission to the University is accepted.

2. Library Fee

Students who have paid a composition fee for the year, or have paid class fees of £4 or upwards, are entitled to the use of the Library during the session without further payment. All other day students will be admitted to the use of the Library on payment of 2s. 6d. a term or 5s. a session, in addition to their class fees.

3. University Union Fee

The annual subscription to the University Union is £3.* This subscription is to be paid to the Accountant at the beginning of each session by all students reading for degrees and also, except in special cases to be determined by the Vice-Chancellor, by all students attending the University for more than six hours a week, who have not paid the composition fee for the year. The subscription entitles students to the use of the Common Rooms (which are supplied with daily papers, periodicals, &c.), to free instruction in the University gymnasium, and to the use of the athletic grounds, five courts and tennis courts.

4. Lecture and Laboratory Fees

(a) General Regulations

The composition fees for lecture and laboratory courses may be paid either sessionally, in advance, or (with certain exceptions) terminally by instalments. Fees paid by instalments are at a slightly higher rate than when paid in advance. The terminal instalment scales of fees are not applicable to students ordinarily resident outside the British Isles; such students must pay fees sessionally in advance.

A student ceasing, for any reason whatsoever, to attend at the University during the session has no claim to a return of fees.

* For students who commenced a course in the University prior to Session 1930-31 and who have remained in attendance, the Union fee will be £2.

A student who elects to pay composition fees by instalments and who withdraws from the University before the end of a session, must pay the whole of the remaining instalments of the session's fees.

On presentation of a form signed by the Dean of the Faculty authorising attendance upon courses of study, and upon payment of the requisite fees, the Accountant will issue a class ticket entitling the student to attend such courses. This class ticket must be presented by the student, before commencing a course, to the Professors or Lecturers whose classes or lectures he is authorised to attend.

(b) Composition Fees for Complete Courses

N.B.—Any student attending a degree course, or any other course which is regarded as a full course, will be required to pay the composition fee appropriate to the Faculty in which he is a student.

Students paying a composition fee of £34 or upwards will be admitted without further charge to any additional classes for their attendance at which they have obtained the sanction of the Vice-Chancellor and the Head of the Department.

The composition fees include the subscription to the University Union unless otherwise stated.

				Fee when paid in terminal instalments on the 1st day of each term.		
				1st Term	2nd Term	3rd Term
				£	£	£
<i>Arts</i>						
For each of first three sessions				34	16	11
4th session				28* ..	14	8
<i>Science</i>						
For each of first three sessions				42† ..	20	14
4th session				34* ..	16	11
<i>Technology</i>						
For each of first three sessions				46 ..	22	16
4th session				38* ..	19	11

* Applicable only in the case of a student who for three successive years has paid the composition fee appropriate to any one Faculty.

† Students in the Chemistry department, in addition to purchasing a working set of apparatus, will also pay a deposit of 30s. at the beginning of each session, to cover the cost of replacing broken apparatus, etc. This deposit will be paid with the tuition fee, and will be refunded at the end of each session after deducting cost of breakages, retort stand rent (1/-), etc.

Students in the Faculty of Arts who take classes or laboratory work or both in the Faculty of Science for more than nine hours a week will be charged the composition fee for Science.

The composition fee for Applied Science (Technology) will be applicable to all students whose courses of study entail an average attendance of six hours a week or more per session in one or more of the Technological departments.

Students of the Engineering, Mining, Fuel, and Colour Chemistry Departments will be charged the Technological composition fee for each year of the course.

Students who have paid the composition fee, and who have been allowed to work in one of the laboratories during the vacation, will be charged an additional fee (see section (c) (iv)).

B.Sc. (Physiology or Bacteriology). Students who combine a course in Physiology or Bacteriology with the Medical course will be required to pay the usual Medical composition fee, and at the commencement of the year in which a student enters upon the Physiology or Bacteriology course for the Honours degree, a supplementary composition fee will be payable, namely, £42 if paid in one sum, or if paid in terminal instalments, 1st term £22, 2nd term £21. This supplementary fee will cover all necessary attendance in the subjects of the course.

Mathematics. Candidates for the degree of B.Sc. with Honours in Mathematics :

	Fee when paid sessionally in advance		Fee when paid in terminal instalments on the 1st day of each term.		
			1st Term	2nd Term	3rd Term
	£	£	£	£	£
1st session	.. 42	..	20	14	10
2nd session	.. 42	..	20	14	10
3rd session	.. 34	..	16	11	9
4th session	.. 28	..	14	8	7

Diploma in Social Organisation and Public Service.

- (1) Two Sessions' Course (including practical work),
 Fee if paid in one sum in advance £27 each session.
 (If paid in terminal instalments: 1st term £14,
 2nd term £10, 3rd term £5).
- (2) One Session's Course (including practical work):
 - (a) Payable by a student who during three successive sessions has paid to this University a composition fee of £33 or more:—
 Fee if paid in one sum in advance £28.
 Fee if paid in terminal instalments: 1st term £14, 2nd term £8, 3rd term £7.
 - (b) Payable by other students:—
 Fee if paid in one sum in advance £34.
 Fee if paid in terminal instalments: 1st term £16, 2nd term £11, 3rd term £9.

NOTE.—Non-Diploma students taking advantage of the facilities for practical social work will be charged a fee of £3 a session in addition to any other fee paid by them.

Diploma in Geography.

- (1) In the case of candidates who are graduates of the University of Leeds, and who have previously paid to this University three composition fees of not less than £33 each.
 - (a) If the course is completed in one year: £28.
 - (b) If the course is spread over two years: £16 10s. a year.
- (2) Other candidates:

Registration Fee: £2 (if not previously paid).

 - (a) If the course is completed in one year: £34.
 - (b) If the course is spread over two years: £19 10s. a year.

Education. Four year Course for students recognised by the Board of Education: Fee paid by the Board of Education.

Reduced Course (second year) for students recognised by Board of Education: Fee of £6 payable by student.

Course for Diploma in Education, £43 each session if paid in one sum, or if paid in terminal instalments, 1st term £21, 2nd term £14, 3rd term £10. (In the case of students in respect of whom a grant is paid by the Board of Education, this fee is reduced by the amount of the grant).

Commerce. Degree Course, £34 each session, unless one of the subjects offered is v. (a, b, c or d) (see Final B. Com. Regulations), in which case the fee to be paid will be £46 for each of the two sessions devoted to the study of that subject. (For instalment scale see section (b)).

Law. Course for degree of LL.B., £14 11s. per session, payable in advance; Course for Final examination of the Law Society, £11 11s. per session (excluding Union fee), payable in advance; Statutory course for Certificate under the Solicitors Act, 1922, £11 11s., payable in advance for the full course if taken during three consecutive terms. (An additional fee calculated at the separate fee rate (see para. (c) (i)) will be charged if the course is spread over a longer period than three consecutive terms).

	If paid sessionally in advance. £	If paid in terminal instalments on the 1st day of each term		
		1st Term £	2nd Term £	3rd Term £
<i>Agriculture.</i>				
Degree Course :				
1st session	42 ..	20	14	10
2nd, 3rd & 4th sessions	46 ..	22	16	10
Diploma Course :				
1st session	31 ..	15	11	7
2nd and 3rd sessions (two Winter terms)	21 ..	—	—	—*

Students who enter upon a four years' course may elect to pay in their first year £46, being the composition fee for the Faculty of Technology, instead of £42, which is the composition fee for the Faculty of Science. They will then be entitled in their fourth year to a reduction of the fee from £46 to £38. (For terminal instalment scale see section (b)).

* Instalment scale not applicable.

Students in the department of Agriculture, in addition to purchasing a recognised set of apparatus, will also pay a deposit of 20s. at the beginning of each session, to cover the cost of replacing broken apparatus. This deposit will be paid with the tuition fee, and will be repaid at the end of each session after deducting cost of breakages.

Medical and Dental. For Medical and Dental Course fees, see separate prospectus or Calendar.

Master of Arts in the Department of Education or Master of Education.

- (a) Candidates who have not graduated in the University of Leeds, or who have not taken the full course for the Diploma in Education :-

Registration fee, £2.

1st year composition fee £12 (including Union fee).

2nd year composition fee £12 (including Union fee).

Fees for lectures and laboratory work not expressly recommended by the Professor of Education will be charged at two-thirds the scale set out in Section (c) (i).

- (b) Candidates who are graduates of the University of Leeds or who have taken the full course for the Diploma in Education :-

Fees calculated at the scale set out in Section (c) (i).

Master of Arts (other than M.A. in the Department of Education, Commerce, Law).

- (a) Candidates who have not graduated in the University of Leeds :-

Registration fee, £2 (if not previously paid).

Fees at the scale set out in Section (c) (i) for any attendance at lectures or classes in the University, provided that the minimum fee payable by any candidate (in addition to the registration fee) shall be £4 4s. per session.

- (b) Candidates who are graduates of the University of Leeds :—

Fees at the scale set out in Section (c) (i) for any classes attended.

Master of Science.

- (a) In the case of candidates who have not graduated in the University of Leeds :—

Registration fee, £2 (if not previously paid).

Fees at the scale for Research Students under Section (d) (2).

- (b) In the case of candidates who are graduates of the University of Leeds :—

Fees at the scale for Research Students under Section (d) (2) if Research is undertaken in the University.

<i>Doctor of Philosophy (Ph.D.).*</i>	Candidates who are graduates of Leeds University	Candidates who are not graduates of Leeds University
Faculty of	£	£
Arts	13	15
Science (Maths.) .. .	13	15
Science (other than Maths.)	17	20
Technology .. .	17	20

Fees for lectures and laboratory work not expressly recommended by the head of the department concerned will be at two-thirds the scale set out in Section (c) (i).

The Supervision fee payable by Ph.D. candidates who have received permission from the Senate to spend the second year of their course in other approved Universities or Institutions will be at the nominal rate of £2.

(c) *Fees for lectures and laboratory work when paid for separately.*

- (i) The following fees, payable in advance, will be charged for lectures and laboratory work when paid for

* Students who registered for a Ph.D. Course prior to Session 1931-32 will pay fees under the scale in force at the time of their registration, i.e., Arts, £10 per session; Science and Technology, £14 per session.

separately, except in the case of classes for which a special fee has been fixed.

First lecture hour per week in a class £4 per session.

Each hour per week beyond the first £2

Each hour per week of laboratory work £2

For two terms three quarters of these amounts will be charged. For one term half of these amounts will be charged.

(ii) Students who have taken a degree or a diploma in the technological departments, and who desire to fill in time at the University while waiting for an appointment shall, on approval by the heads of the departments concerned, be permitted to attend for short periods in these departments at a fee not exceeding £1 per week plus any cost entailed for special material.

(iii) Students who are deemed by the head of the department concerned to be capable of independent work may be admitted to work in vacations only (during such times as the laboratories are open), on the following scale of fees :—

1 day a week	..	..	£1	10	0	per month.
2 days	„	..	£3	0	0	„
3 „	„	..	£4	10	0	„
4 „	„	and upwards	£6	0	0	„

(iv) For students who have paid a Composition Fee in the same session, and who are admitted to vacation work the fee will be one pound per month.

(d) Fees for Research Students

Persons desiring to pursue original research may be admitted as research students upon the following conditions :—

(1) Applications for admission as research students must be made to the head of the department concerned. The admission is subject to the approval of the Senate.

(2) Graduates and advanced students will, if admitted as research students, be charged fees at the following rates* :—

	Scale applicable to students who were accepted as research students on or after 1st October, 1931.		Scale applicable both to Leeds graduates and to others who were accept- ed as research students prior to Session 1931-32.	
	Leeds graduates	Other than Leeds graduates		
Sessional .	15†	18†		12†
Terminal .	£5 5	£6 10 0	3 mths.	4
One month	£2 10	£3 0 0	1 mth.	2

- * These fees will include any University lectures or laboratory work recommended by the head of the department. The fee to any other lectures or laboratory work will be charged at two-thirds the scale set out in Section (c) (i). The Sessional Research fee will in no case apply to students preparing for a Bachelor's degree unless they have completed the third year course of study in the University, and have paid the appropriate composition fee for three years.

(3) Persons prosecuting private industrial investigations will, if admitted as research students, be charged £6 a month with additional charge for any special expenditure incurred by the University in connexion with the research.

(4) Research students who attend for short periods only will not be charged the library fee unless they wish to use the library.

(5) Research students in the Chemistry department will also pay a deposit of 30s. at the beginning of each session to cover the cost of replacing broken apparatus. This deposit fee is payable with the research fee, and is repayable at the end of each session after deduction of the cost of breakages.

* In certain special cases, Research Students may pay the fees mentioned under Section (c) (i).

† Plus the Union Fee if a student attends the University for more than six hours a week, unless exemption from payment of the Union Fee is granted by the Vice-Chancellor.

(6) Research students will not be entitled to the use of the students' Common Rooms except on payment of the subscription to the University Union.

5. Examination Fees

No fee will entitle to admittance to more than *one* examination. Unless otherwise stated, the fee for a second or subsequent examination is the same as that for the first. All fees are payable in advance.

For the Matriculation examination, £2.*

For Ordinary B.A., a total examination fee of £6, payable in two instalments, £3 on presentation for first examination, and £3 at the end of the second session.

For Honours Schools with no first year qualifying examination (Modern Languages, Classics) £6 for Honours examination.

For Honours Schools with a qualifying examination, £3 for qualifying examination, and £3 for Honours examination.

For the Intermediate examination for the degree of LL.B., or B.Com., £3.

For the Final examination for the Ordinary or Honours degree of LL.B., or B.Com., £3.

B.Sc. degree:—

- (i) A fee of £6 to be payable; £3 to be paid when the candidate presents himself for examination at the end of the first session in the University, £3 upon the second occasion on which he presents himself for examination.
- (ii) In cases where no examination is taken at the end of the first session, a fee of £6 to be payable on the first occasion on which the candidate presents himself for examination.

* Joint Matriculation Board fees are payable to the Secretary, Joint Matriculation Board, 315, Oxford Road, Manchester.

For the examination or report upon dissertation for the degree of M.A., M.Sc., M.Ed., M.Com., or L.L.M., £5.

For the examination or report upon dissertation for the degree of Litt.D., LL.D., or D.Sc., £15; Ph.D., £10.

For the examination in Education for the Government Certificate, £1

For the Final examination for any Diploma in the Faculty of Arts, £3.

- Diplomas in Technology, £6, with the following exceptions :—

(a) The fee for graduates of this University (or for candidates who have paid the full degree examination fee of £6) or for the holders of a diploma of this University, £3.

(b) If a diploma be granted in addition to the degree on the results of the degree examination, the extra fee entitling to the diploma is £1.

(c) No additional diploma fee is charged to a candidate who has paid for the degree examination and has been awarded a diploma in place of a degree on the results thereof.

(d) Fee for re-examination, £3.

Candidates who are allowed to take any examination in two or more parts will be required to pay the full fee for such examination when entering for the first part.

When the regulations allow a candidate to take part of an Intermediate or Final examination separately, the following fees will be charged for re-examination, viz. :—

(a) *B.A. degree* :—

£1 for each re-examination in each subject; but the aggregate fees for the *first* re-examination in all subjects shall not exceed £8.

(b) B.Sc. degree:—

£1 for an Introductory (or one year) subject

£2 for a Subsidiary (or two year) subject

£3 for a Principal (or three year) subject

but the aggregate fees for the *first* re-examinations in all subjects shall not exceed £8.

Agriculture in the Ordinary degree shall rank as a three-year subject for this purpose.

(c) B.Com degree:—

15/- for a Subsidiary subject.

Medical and Dental Course Examination Fees

See separate prospectus or Calendar.

6. Degree Fees

On the conferment of a first degree in the Faculties of Arts (including Commerce and Law), Science and Technology, £7 (including Convocation fee). On conferment of a further degree, £6.

SCHOLARSHIPS

The University offers a certain number of Senior and Graduate Scholarships, full particulars of which are given in the Scholarship Prospectus and the Calendar.

Scholarships tenable at the University of Leeds in scientific and technical subjects, (including Agriculture) as well as in Arts subjects, are also offered by the Leeds City Council and the County Councils of the North, East, and West Ridings of Yorkshire.

In certain cases assistance is offered to students in Evening Classes.

For further information application should be made as follows:—

For Leeds City Council Scholarships: To The Director of Education (Higher Section), Education Department, Leeds.

For West Riding Scholarships: To The Education Department, County Hall, Wakefield. Applicants should ask for Section X of Part II of the Handbook of the Education Committee.

For North Riding Scholarships: To The Secretary, Education Offices, County Hall, Northallerton.

For East Riding Scholarships: To The Clerk, East Riding County Council, Beverley.

OFFICERS' TRAINING CORPS

A contingent of the Senior Division of the Officers' Training Corps was formed at the University in July, 1909, and was accepted by the War Office.

Information as to conditions of membership, &c. may be obtained from the Commanding Officer.

UNIVERSITY LIBRARY

The Library is open (a) daily during term from 9 a.m. to 5.30 p.m. (on Saturday from 9 a.m. to 1 p.m.); (b) during vacation from 9 a.m. to 5 p.m.

It is closed during one week at Christmas and during the public holidays when the University is closed.

General Regulations*

1. No book shall be removed from the Library unless the borrower shall have first filled in the form provided.

2. No mark of any kind may be made in the Library books or periodicals. Any loss of, or injury to, a book shall be reported to the Librarian, who shall require the person responsible to pay a sum not exceeding that which will be required to make the loss or injury good.

3. The Librarian, in consultation with the Library Committee, has power to suspend the Library privileges of any person who breaks the rules of the Library.

4. The following books may only be taken out of the library after 4 p.m. on Monday, Tuesday, Thursday and Friday and after 12 (noon) on Wednesday and Saturday. They must be returned before 10 a.m. on the next day on which the library is open:—

(a) Dictionaries, encyclopedias and other works of reference.

(b) Books placed in the reference sections of the library owing to their constant use.

(c) Current numbers of periodicals.

*For Regulations relating to the Medical Library see Prospectus of the School of Medicine.

5. Certain books and periodicals of exceptional importance or rarity may not be removed from the library except with the permission of the Librarian.

6. No person shall be allowed to take a book out of the Library if he has in his possession any book which he has kept beyond the time allowed by the regulations, or if any fine or charge which he has incurred has not been paid.

7. Persons not members of the University may be given by the Librarian the right to consult books on production of a satisfactory recommendation. In special cases this may be extended to the right to borrow books on payment of 2s. 6d. a term or 5s. a session.

8. The Librarian shall be at liberty to grant special facilities for the use of books during a limited time to any person entitled to the use of the Library.

9. No smoking shall be permitted within the precincts of the Library and the rooms appertaining thereto.

Regulations affecting Members of the Academic Staff

10. Any member of the Academic Staff shall be entitled to take out such books as he requires and to retain them until the end of term, unless he receives a notice that any of these books are overdue, in which case such book or books shall be returned without delay to the Library. A book shall be regarded as overdue when it has been in the possession of the borrower for a fortnight and is required by some other person. This regulation shall apply, *mutatis mutandis*, to books taken out at the beginning of, or during, any of the vacations.

11. A book which is not overdue according to Rule 10 may be renewed for the vacation on application in writing to the Librarian.

Annual Inspection

12. All books must be returned to the Library by 5 p.m. on Monday in the last week but one of the second term. No book shall be borrowed again before the following Friday morning.

12a. A fine of twopence per volume shall be imposed for every day that a book is detained beyond the time for its return for the inspection; the same shall apply to books lost, when the loss shall not have been notified to the Librarian before the days of inspection.

Regulations affecting present and past Students of the University

13. All graduates of the University and Associates of the Yorkshire College are entitled to the free use of the Library.

14. Students who have paid a composition fee for the year, or have paid class fees of £4 or upwards, are entitled to the use of the

Library during the session without further payment. All other day students will be admitted to the use of the Library on payment of 2s. 6d. a term or 5s. a session, in addition to their class fees.

15. All evening students, and all past students who are not graduates are entitled to the use of the Library on payment of a fee of 2s. 6d. per session.

16. No student may have the right to borrow more than three volumes at one time. A student desiring specially to borrow more than this number of volumes should make application to the assistant in charge of the General Library.

17. Every book must be returned to the Library on or before the fourteenth day following that in which it was taken out. A book may, however, be renewed from week to week until four weeks have elapsed since its first issue, provided that no application for the use of the book by another person has been received in the meantime.

18. All books must be brought to the Librarian for renewal, except when an application for renewal has been made and granted on the day before that on which the return of the book falls due. Applications for renewal may be made personally or by post.

19. All books must be returned to the Library before the end of the second term in accordance with Regulation 12.

20. Students provided with a written recommendation from a Professor or Lecturer shall be entitled to take out books of reference, but books taken out under this rule must be returned to the Library before the person using them leaves the University buildings.

21. Any person borrowing a book under Rule 4, and failing to return it by the time therein specified, shall be fined 4d. a day, and any person who does not comply with Rule 17, shall be fined 2d. if the book is returned within seven days following the day on which it is due back and 2d. a day for each day after that period. A notice shall be posted to the borrower on the business day following that on which the return of the book was due, informing him that a fine is being incurred.

22. Books may be taken out at the beginning of, or during, any of the vacations, and may be retained until the borrower receives notice that they are overdue. A book shall be regarded as overdue when, having been in the possession of the borrower for a fortnight, it is required by some other person. All books taken out during any of the vacations shall be returned not later than the first week of the ensuing term.

23. Books may be taken abroad only with the special permission of the Librarian.

Regulations respecting Special Libraries

1. *The following are the Special Libraries.*—(a) Economics ; (b) Philosophy ; (c) Classics.

2. *General Status.*—Special Libraries, being departments of the University Library, are subject to the regulations of the University Library, except in so far as modified by the following rules.

3. *Admission to Special Libraries.*—(a) *Academic Staff.* A master key of all the Special Libraries shall be issued to the members of the teaching staff, on application to the Librarian.

(b) *Students.* The Librarian may further give the right of admission to each Special Library, in accordance with the procedure detailed in regulations 4 and 5, to students of the University upon the written recommendation of the professor or head of department.

(c) *Occasional Use.* The Librarian shall have the power provisionally to admit students to any of the Special Libraries, subject to the approval of the head of the department concerned.

4. *Issue of keys.*—A key shall be issued to students duly recommended in accordance with regulation 3 (b) for the use of a particular library, on payment of a deposit of ten shillings which shall be returned when the key is surrendered.

5. *Availability of keys.*—Keys thus issued to students are available until the first week of the next session. Permission to retain a key thereafter may be given to students continuing at the University, subject to the approval of the head of the appropriate department. Students desiring to continue the use of the key must accordingly notify the Librarian to that effect. Students who do not return their keys or who do not state their desire to retain them shall be notified by the Librarian, and the deposit, together with the right to the use of the Special Library in question, shall be forfeited if the key is not returned by the end of the month of December.

6. *Borrowing of Books.*—Members of the Special Libraries may borrow books by filling up a form and placing it in a box provided in the Special Library for the purpose. Such books shall be returned to the assistant in charge in the General Library and the borrower's form received back in exchange. The borrower is responsible for the book as long as the form is retained in the borrower's register. In other respects the same rules shall apply to books borrowed from the Special Libraries as to books borrowed from the General Library.

7. *Books not to be removed.*—Lists of books which must not be removed from the Special Library or be borrowed by students who are not members thereof, shall be drawn up by the Librarian in consultation with the head of the department.

8. *General use.*—In all other respects the books in the Special Libraries shall be under the same regulations as books in the General Library and may be consulted by all who are entitled to use the University Library, on application to the library staff.

Regulations for the Agricultural Library

1. *General Reference Books.*—These books may not be removed from the library until after 5 p.m., except by members of the staff. They must be returned by 10.15 a.m. next day. They may be removed from the library on Saturdays after 11.45 a.m., and must then be returned by 10.15 a.m. on the following Monday. Members of the staff borrowing books before 5 p.m. must not take them out of the building until after that time.

2. *Advisory Reference Books, i.e., books which may be required urgently at very short notice in connection with advisory work.*—Conditions to be the same as for General Reference Books with the exception that students may not borrow the books.

3. *Serials.*—Current numbers may be borrowed under the same conditions as Advisory Reference Books.

UNIVERSITY PARLIAMENTARY CONSTITUENCY

By the provisions of the Representation of the People Act, 1918, the University of Leeds forms part of the English University Constituency, which returns two members to Parliament.

Section 2 of the Act states: "A man shall be entitled to be registered as a Parliamentary elector for a University constituency if he is of full age," *i.e.* 21 years, "and not subject to any legal incapacity, and has received a degree (other than an honorary Degree) at any University forming, or forming part of the constituency."

Section 4 states: "A woman shall be entitled to be registered as a Parliamentary elector for a University constituency if she has attained the age of thirty years* and . . . would be entitled to be so registered if she were a man."

The University Court, in the exercise of powers conferred upon it by section 19 of the Act has laid down the following conditions of registration:—

- (a) *Persons who have graduated before the passing of the Act (February 6th, 1918), and who are otherwise qualified, will only be entered on the register if*

- i. they make written application to the University

*Under the Equal Franchise Act, 1928, the qualifying age is now 21 years.

- ii. they have paid a registration fee of £1 if they are not members of Convocation, or of 9s. 6d. if they became before August 1st, 1918, members of Convocation.

(b) *Persons who graduate at or after Midsummer, 1918,* will if they have paid *before graduation* a special combined fee of £1, be entered on the roll of Convocation and also entered on the Parliamentary Register as soon as they have completed the qualifying age. If this special fee is not paid at the time of graduation, they will be charged a fee of £1 for registration as Parliamentary electors.

(c) All persons who graduate on or after June 1st, 1926, having already paid, in accordance with Ordinance XXV, a Convocation fee of £1, will be entered on the Parliamentary register without further fee as soon as they have completed the qualifying age.

Claims may be made up to the 31st July in each year and the Register will come into effect from the 1st October following.

Application for registration must be made on the official form, which may be obtained from

The Registration Officer,
The University, Leeds.

Change of address on the part of an elector should be notified promptly to the Registration Officer.

All communications requiring a reply should be accompanied by a stamped addressed envelope.

APPOINTMENTS BOARD

The Board has been set up for the purpose of assisting present and past students of the University who desire help in obtaining posts. A detailed register is kept of all students who enrol, and notices of suitable appointments are sent out regularly. The Secretary is in touch with the Ministry of Labour, the Universities Bureau, the Federation of British Industries, and all Government Departments.

Many Education Authorities now notify their vacancies direct to the Secretary, and the number of enquiries from private employers is steadily increasing.

It is desirable to emphasise the fact that registration with the Board is permanent, and the Secretary endeavours to keep up to date information regarding the whereabouts and nature of employment of all Old Students who are registered with the Board.

No fees are charged either for registration or for negotiations conducted between students and prospective employers.

The Board will welcome the views of employers on matters relating to the employment of University graduates in business houses, and will at all times be glad to hear of suitable vacancies.

All communications should be addressed to the Secretary, Appointments Board, The University, Leeds.

ACADEMIC DRESS

All Hoods are to be of a Green shade, combined with Black, White, Scarlet, or with one another, to produce the variations required for the several Degrees, namely :

B.A., a self-coloured Hood of Dark Green shade.

B.Com., a Light Green Hood, lined with Dark Green

B.Sc., a self-coloured Hood of Middle Green shade.

LL.B., a self-coloured Hood of Light Green shade.

M.B. and Ch.B., a Hood of Dark Green, lined with Light Green.

B.Ch.D., a Hood of Dark Green, lined with Middle Green.

M.A., a Dark Green Hood, with White Lining.

M.Sc., a Middle Green Hood, with White Lining.

M.Ed., a Dark Green Hood, with White Lining and Band one inch of Middle Green laid on the White Silk.

LL.M., a Light Green Hood, with White Lining.

M.Com., a Light Green Hood with White Lining and Band one inch of Dark Green laid on the White Silk.

M.Ch., a Dark Green Hood, edged with Light Green, and lined with White.

M.Ch.D., a Dark Green Hood, edged with Middle Green and lined with white

All Bachelors' Hoods are to be lined, and all Bachelors' and Masters' Hoods are to be of the single or Oxford pattern.

The Gown of a Doctor (other than a Doctor of Philosophy) is to be of Scarlet, with facings and sleeve linings of the shade of Green distinctive of his faculty. The Hood is to be of Scarlet, lined with the distinctive shade or shades of Green. The Full Dress Cap is to be of the usual pattern, with a Gold Cord, and a lining of the shade of Green distinctive of the faculty.

The Gown of the Doctor of Philosophy is to be of Green, with sleeve linings of Green, and facings of Green bound with Scarlet. The Hood is to be of Green, lined with Green, and with narrow bindings of Scarlet. The Full Dress Cap will be Black Velvet of the usual pattern.

The Senate of the University have laid down the following definitions of correct academic dress for ceremonial occasions :—

(a) Academic undress : Black gown.

(b) Academic dress :—

Bachelor	...	Black Bachelor's gown with appropriate hood.
Master		Black Master's gown with appropriate hood.
Ph.D.	...	Black Master's gown with Ph.D. hood.
Doctor	...	Black Master's gown with Doctor's hood.

(c) Full academic dress :—

Bachelor	..	Black Bachelor's gown with appropriate hood.
Master	...	Black Master's gown with appropriate hood.
Ph.D.	...	Ph.D. gown without hood.
Doctor	...	Scarlet gown, without hood if the gown is faced with the distinctive colour of the specific Doctor's degree.

ROBEMAKERS TO THE UNIVERSITY

Ede & Ravenscroft, 93 and 94, Chancery Lane, London.

Representatives of the firm attend on Degree Days to robe those who are to be presented for degrees.

ARMS OF THE UNIVERSITY

The Arms of the University are "Vert an open Book proper edged and clasped Gold inscribed with the words 'Et Augebitur Scientia' between in chief three Mulletts Argent and in base a Rose of the last seeded proper, and for the Crest on a Wreath of the Colours A Greek Sphinx sejant Gules."

STUDENTS' SOCIETIES

The University Union comprises the Cricket, Football (Rugby and Association), and Tennis Clubs, and undertakes the management of the Gymnasium, the Fives Courts and the Debating Society. Among University Societies are the Literary and Historical Society, the Debating Society, the Education Society, the Cavendish Society, the Natural History Society, the Engineering Society, the Textile Society, the Agricultural Society, the Society for Social Study, the Geographical Society, the International Society, the Maitland Society and the Music Society.

The Colours of the University Union are Green, White and Maroon.

The *recognition* of students' Societies of all kinds is in the hands of the Senate, and will be considered only in the case of (i) Societies under the direct management of the University Union, and (ii) Societies formed for the promotion of general academic and departmental studies. No Society is recognised as a University Society unless its current rules and regulations have received the sanction of the Senate.

Recognition implies :--

- (a) The right to the use of a particular room in the main University buildings for the purpose of assembly.
- (b) The right to use this room at stated periodic intervals in the session, free of charge.
- (c) The right to describe the Society as a Leeds University Society.

- (d) That only members of staff and past and present students of the University will be admitted to full membership of the Society. The Senate reserves the right to modify this regulation in special circumstances on application being made by a Society.
- (e) That any student of the University otherwise qualified will not be debarred from joining the Society.
- (f) That the Society will undertake to protect the property of the University from damage during use by the Society

GYMNASIUM

The Gymnasium is free to all members of the University Union. It is reserved for the use of women students at suitable hours, which, together with those arranged for other classes, will be announced at the beginning of the session.

LOCKERS FOR COATS AND BOOKS

The use of a coat locker may be obtained for the session, or a part of it, by depositing 5s. with the Hall Porter, who will lend the student a key, which will, however, remain the property of the University. A charge of 3s. 6d. per session will be made, the balance of the deposit money being repaid when the key is returned, provided the return be made not later than one week after the end of the session.

Smaller lockers, for books, &c., are also provided, and the use of one of these may be obtained on a deposit of 4s. for the session or term, 1s. 6d. of which will be repaid on compliance with the above conditions.

A student will be charged for any damage done to the lockers while in his possession, or for loss of keys. The loss of a key should be immediately reported to the Hall Porter.

LODGING AND BOARDING HOUSES

A Register of approved lodging-houses is kept at the University, and printed lists can be sent at any time to parents, guardians, or students who desire to take lodgings.

If a student takes lodgings which are not already on the register, he must immediately apply to the Supervisor of Lodgings for a form of application for registration of lodgings. This form must be filled in and returned at

once, when the lodgings will be visited on behalf of the University, and if they do not satisfy the prescribed conditions the student will be required to leave them.

No back-to-back houses will be regarded as fulfilling the prescribed conditions.

All communications with regard to lodgings should be addressed to The Supervisor of Lodgings, The University, Leeds.

THE UNIVERSITY HALLS OF RESIDENCE

The University has provided a number of Halls of Residence for men and women respectively. Students from all departments of the University are admitted, and the residents of each Hall are encouraged to take an active part in the social as well as the academic life of the University, and to maintain within the Halls the necessary discipline for themselves. Places are reserved in the Halls of Residence for Women for Recognised Students who are accepted by the Department of Education and cannot reside at home.

For Women

LYDDON HALL Warden : Miss A. B. MARCHBANK.
COLLEGE HALL Warden : Miss J. HOLGATE, B.A.

These Halls are close to the University and near the University tennis and fives courts

OXLEY HALL Warden : Mrs. MOORMAN.
WEETWOOD HALL .. Warden : Mrs. REDMAN KING, B.Sc.

These Halls are situated in their own grounds, near the University Athletic Grounds, and are provided with their own tennis courts.

For Men

DEVONSHIRE HALL .. Warden : Professor STRONG.

Fees for Residence

The fees if paid during the first week of the Session are as follows:—

(a) *Ordinary Students.*

Men : £64 per session of 32 weeks.

Residence beyond the above period, £2 per week.

Women: £54 to £63 (according to the accommodation chosen) per session of 32 weeks.

Residence beyond the above period, £1 14s. per week.

(b) Recognised Students in Training.

Grants are paid to the University by the Board of Education on behalf of Recognised Students who reside in one of the Halls of Residence. The fees for the session of 32 weeks, are :

Men—	..	..	..	..	..	..	£21
Women—	..	..	..	..	..	..	£20 to £29

Residence beyond the period of 32 weeks is charged for at the rate for ordinary students.

The above scales of fees (a) and (b) may be paid in instalments at a slightly increased rate.

REFECTORY

For the convenience of students, dinners are served daily in the University Refectory, from 12.30 to 2 p.m. Cold meats may also be obtained after the latter hour; tea, coffee, and other light refreshments up to 6 p.m.

Sessional and terminal tickets may be had on application to the Accountant, entitling students to dine at the Refectory, University Road, daily (except Saturdays) during the session or term. The cost of these tickets will be as follows :—

For men students—

£7 10s. per session, or £2 15s. per term for the first and second terms, and £2 10s. for the third term and

For women students—

£6 5s. per session, or £2 7s. 6d. per term for the first and second terms, and £2 for the third term

CECIL DUNCOMBE OBSERVATORY

The Cecil Duncombe Observatory was opened on May 4th, 1906, by Dr. H. H. Turner, Savilian Professor of Astronomy in the University of Oxford. It is built on a site in Woodhouse Moor contributed by the Leeds City Council.

MATRICULATION EXAMINATION

All communications relating to this examination should be addressed to "The Secretary, Joint Matriculation Board, 315, Oxford Road, Manchester."

The Matriculation examination is conducted by a Joint Board representing the Victoria University of Manchester, the University of Liverpool, the University of Leeds, the University of Sheffield, and the University of Birmingham. Candidates for degrees in any one of these Universities are required to have passed this examination, or to have obtained exemption therefrom, before beginning a degree course. Any application for exemption must be addressed to the Joint Matriculation Board, and must be accompanied by the certificate or certificates upon which the application is based. Grants of exemption will be subject to and conditional upon the payment of the registration fee of £2. The conditions which entitle a student to exemption from the Matriculation examination are fully set forth in the Matriculation syllabus. The examination is held in July and September of each year in the buildings of each University. The July examination is held at such other centres as the Board may authorise. Information as to the conditions may be obtained from the Secretary to the Joint Board.

The fee for the examination is £2. Cheques and postal and money orders should be made payable to "The Secretary, Joint Matriculation Board," and crossed "Williams Deacon's Bank, Ltd., Chorlton-on-Medlock Branch."

The Joint Matriculation Board also conduct the following special examinations in lieu of the Matriculation Examination as follows :

(A) An examination for Persons of Mature Years.

Applications under these Regulations must be made not later than May 1st, and candidates must be not less than 23 years of age on May 1st of their year of application. The candidate should give a short account of his educational attainments, and state the

Faculty and University he proposes to enter. The Board will interview the candidate, inquire into his educational and other records bearing on his application, and submit him to such examination, written or oral, or both, as they may consider necessary.'

The examination fee is £2.

This form of examination is intended to meet *exceptional* cases of candidates who have had no opportunity of taking the ordinary Matriculation Examination (or similar exempting examinations) at the normal time, and who show promise of obtaining more than ordinary success in a University course.

The examination is not a formal one, and no subjects are prescribed or syllabus laid down. Further, it is not intended that a candidate should prepare himself for the examination, which will be decided largely on the results of the interview and of the inquiry into his educational antecedents. The examination test will vary according to the individual candidate, though every candidate will be asked to write an English Essay.

If a candidate has been interviewed, no portion of the fee of £2 is returnable, whether he is accepted or rejected.

Only *bona fide* students who intend to enter on a degree course at one of the five Universities are eligible for entry to this examination.

Unsuccessful candidates may not enter for the examination a second time.

(B) *An examination for candidates who have been engaged in Industry and Commerce, and who wish to proceed to a degree course at the University.*

A special examination will be held annually, in July, to meet the cases of candidates who, since leaving school, have been engaged in Commerce or Industry for a period of at least three years, and who have also, as students, attended systematic day or evening courses of instruction satisfactory to the Board for at least a period of three years.

The examination will provide a test of capacity at least as high as that of the ordinary Matriculation Examination. English (or History) and a Foreign Language are compulsory subjects.

Candidates must supply a statement, satisfactory to the Board, giving reasons why a Matriculation Certificate was not obtained before leaving school.

Candidates must have reached the age of 19 on or before June 30th preceding the examination.

Successful candidates will be awarded a Certificate entitling them to enter a specified Faculty of one of the five Universities, providing they satisfy any special requirement of the Faculty. The special requirements of the Faculties of the various Universities are set out in the Matriculation Syllabus. The Certificates will state in what subjects the candidate satisfied the Examiners.

Candidates for the examination must forward to the Secretary before the prescribed day :

1. Birth Certificate.
2. Duly authenticated statements dealing with
 - (a) The employment in which they have been engaged.
 - (b) The course of instruction which they have attended.
3. An Entry-Form (to be obtained from the Secretary) duly completed.
4. The fee of £2.

Applications for Entry-Forms and further details of the above examinations should be made to The Secretary to the Board, 315, Oxford Road, Manchester.

DEGREES IN ARTS

- Ordinance** 1. The degrees in Arts shall be :
- Bachelor of Arts (B.A.)
 - Master of Arts (M.A.)
 - Master of Education (M.Ed).
 - Doctor of Philosophy (Ph.D.).
 - Doctor of Letters (Litt.D.).

DEGREE OF BACHELOR OF ARTS

2. The degree of Bachelor of Arts shall be conferred either as an Ordinary degree or as a degree with Honours.

3. All candidates for the degree of Bachelor of Arts shall be required to have passed the Matriculation examination, and thereafter to have pursued approved courses of study for not less than three academic years.

Regulations Candidates will not be admitted to the courses of study for the degree of Bachelor of Arts unless they have (1) passed the Matriculation examination in Latin, or (2) passed with "credit" in Latin in one of the recognised School Certificate examinations, or (3) passed in Latin as a Full or as a Subsidiary subject in one of the recognised Higher School Certificate examinations, provided that translation at sight from Latin into English forms part of the examination.

Candidates of non-European descent, who are natives of Asia or Africa, may be allowed to substitute one of the following languages for Latin, provided that they shall also give evidence of possessing a sufficient knowledge of English; Arabic, Sanskrit, Persian, Pali, Classical Chinese.

Ordinary Degree of Bachelor of Arts

Ordinance 1. Every candidate shall be required, after Matriculation, to attend approved courses of study, and to pass the prescribed examination or examinations in *either* :—

- (a) Three subjects for three years each, and one other subject for two years ; *or*
- (b) Three subjects for three years each, and two other subjects for one year each ; *or*
- (c) Two subjects for three years each, two other subjects for two years each, and one other subject for one year.

2. Candidates shall select their subjects from those specified in the *Regulations for the Ordinary Degree*, provided that :—

- (a) Not less than four approved courses shall be attended in the first year, one of which shall be Greek or Latin, and not more than three of which may be languages other than English.
- (b) One language other than English shall be included for not less than three years.
- (c) One of the courses in Philosophy, Economics, or Law, specified for this purpose in the *Regulations*, shall be included for not less than one year.
- (d) Not more than one of the Sciences specified in the *Regulations* may be included.

3. Candidates shall not be permitted to present themselves for examination in any subject unless they have regularly attended the prescribed course of study, and performed the work of the class to the satisfaction of the Professor or Lecturer.

1. The subjects in which courses are approved for *Regulations* the Ordinary Degree are as follows :—

- (a) Greek, Latin, Hebrew,
French, German, Spanish, Russian,
English, History, Economics,
Geography, Mathematics, Music, Icelandic.*

Approved courses in these subjects extend over either *one* year, *two* years, or *three* years.

*Icelandic at present can only be taken as a one year course or a two years' course.

- (b) Logic, Psychology, Ethics, Political Theory, History of Ancient Philosophy, History of Modern Philosophy.

Approved courses in these subjects extend over *one* year only ; but where two or three are attended in separate years they may be taken as constituting approved *two* years or *three* years courses respectively for the purposes of *Ordinance, Article (1)*.

Of these subjects only Logic may be studied in the first year.

- (c) *Sciences* ;—Physics, Chemistry, Zoology, Botany, Geology.

Approved courses in these subjects extend over *one* year only.

2. Any course extending over one year for the degree of Bachelor of Arts with Honours in any School, may, with the sanction of the Board of the Faculty of Arts, be accepted as a *one* year course for the Ordinary degree.

3. The subjects approved as satisfying the condition laid down in *Ordinance, Article (2) (c)* are as follows :—Logic, Psychology, Ethics, Political Theory, History of Ancient Philosophy, History of Modern Philosophy, General Economics.

4. Candidates holding a Higher School Certificate in any subject selected for the Ordinary Degree may, subject to the approval of the Board of the Faculty of Arts, substitute for the course and examination for the first year in that subject those of the second year, and for the course and examination for the second year those of the third year. If the subject is studied for three years a more advanced course may then be attended in the third year, success in the examination in such course being recorded on the graduation certificate.

5. Subject to such other restrictions as are set forth in the Ordinances and Regulations, approved one year

or two years courses may be attended at any period subsequent to Matriculation.

6. Candidates may present themselves for examination in any subject when they have satisfactorily completed the course. Where subjects are studied for two years or three years candidates must pass the examination in the course appropriate to each year before proceeding to the course for the next year.

7. The examination in each Modern Foreign Language shall include an oral examination.

8. The examinations will ordinarily be held in June of each year, but supplementary examinations, confined to candidates completing the first year of their degree course, may also be held in September. No candidate will be admitted to a supplementary examination in any subject who has not already presented himself at the ordinary June examination in that subject, except with the special permission of the Senate.

N.B.—In 1932 the latest date of entry and payment of fees for B.A. degree examinations (ordinary and honours) held in June, will be TUESDAY, MARCH 1st.

Prescribed Courses

(The texts prescribed and the periods selected for study in certain subjects will be found set out in subsequent pages under "Courses in Arts.")

GREEK.

One Year Course :	Greek I
Two Years Course :	1st year : Greek I
	2nd year : Greek II
Three Years Course :	1st year : Greek I
	2nd year : Greek II
	3rd year : Greek III

LATIN

One Year Course :	Latin I
Two Years Course :	1st year : Latin I
	2nd year : Latin II
Three Years Course :	1st year : Latin I
	2nd year : Latin II
	3rd year : Latin III

HEBREW

One Year Course :	Hebrew I
Two Years Course :	1st year : Hebrew I 2nd year : Hebrew II
Three Years Course :	1st year : Hebrew I 2nd year : Hebrew II 3rd year : Hebrew III

FRENCH.

One Year Course :	French IA or B and Ic
Two Years Course :	1st year : French IA or B and Ic 2nd year : French IIA and B
Three Years Course :	1st year : French IA or B and Ic 2nd year : French, IIA and B 3rd year : French IIIA and IIB

GERMAN.

One Year Course :	German I and IIB
Two Years Course :	1st year : German I and IIB 2nd year : German II and IIB
Three Years Course :	1st year : German I and IIB 2nd year : German IIA and B 3rd year : German IIIA and IIB

SPANISH.

One Year Course :	Spanish I
Two Years Course :	1st year : Spanish I 2nd year : Spanish II
Three Years Course :	1st year : Spanish I 2nd year : Spanish II 3rd year : Spanish III

RUSSIAN.

One Year Course :	Russian I and IIB
Two Years Course :	1st year : Russian I and IIB 2nd year : Russian II and IIB
Three Years Course :	1st year : Russian I and IIB 2nd year : Russian II and IIB 3rd year : Russian III and IIB

ENGLISH

One Year Course :	English IA and B
Two Years Course :	1st year : English IA and B 2nd year : English IIA, B and C
Three Years Course :	1st year : English IA and B 2nd year : English IIA, B and C 3rd year : English IIIA and B

ICELANDIC.

One Year Course :	Icelandic IA and B
Two Years Course :	1st year : Icelandic IA and B 2nd year : Icelandic IIA and B

HISTORY.

One Year Course :	History IA or IB
Two Years Course :	1st year : History IA or IB 2nd year : History IIA, B or C

Three Years Course : 1st year : History IA or B
 2nd year : History IIA, B, or C
 3rd year : Two courses selected from
 IIIA, B, C, D, E

PHILOSOPHY.

One Year Course : Any one of the following :
 Philosophy I, IIA, B, C, D, E.

Two Years Course : 1st year } Any two of Philosophy I,
 2nd year } IIA, B, C, D, E.

Three Years Course : 1st year : Philosophy I.
 2nd year } Any two of Philosophy IIA,
 3rd year } B, C, D, E.

ECONOMICS.

One Year Course : Economics I

Two Years Course : 1st year : Economics I
 2nd year : Economics IIF and one of
 the following A, B, C, D, E.

Three Years Course : 1st year : Economics I
 2nd year : Economics IIF and one of
 the following : A, B, C, D.
 3rd year : Economics II, two of the
 following : A, B, C, D, E not
 already taken.

GEOGRAPHY.

One Year Course : Geography

Two Years Course : 1st year : Geography
 2nd year : Geography

Three Years Course : 1st year : Geography
 2nd year : Geography
 3rd year : Geography III

MATHEMATICS.

One Year Course : Mathematics Intro.

Two Years Course : 1st year : Mathematics Intro.
 2nd year : Mathematics F1 and F2

Three Years Course : 1st year : Mathematics Intro.
 2nd year : Mathematics F1 and F2
 3rd year : Mathematics F3 and F4

MUSIC.

One Year Course : Music I

Two Years Course : 1st year : Music I
 2nd year : Music II

Three Years Course : 1st year : Music I
 2nd year : Music II
 3rd year : Music III

SCIENCES.

Physics

Chemistry

Zoology

Botany

Geology

The Introductory course in these subjects
 forms the prescribed one year course.

Degree of Bachelor of Arts with Honours

Ordinance. 1. Candidates for the degree of Bachelor of Arts with Honours shall, except as hereinafter stated, be required to furnish certificates of having attended courses of instruction approved by the University and extending over not less than three academic years in one of the Honours Schools of the University hereafter enumerated.

2. Every candidate for the degree of Bachelor of Arts with Honours shall be required to present himself for examination at the end of the third or fourth academic year from the time when he has entered upon one of the courses of instruction approved by the University for such degree, unless he shall present a medical certificate of illness satisfactory to the Senate. This examination shall ordinarily be held in June of each year.

3. Candidates for the degree of Bachelor of Arts with Honours may present themselves for examination in any of the following Honours Schools on furnishing certificates of having pursued, to the satisfaction of the Senate, the courses required for such Honours Schools in the University, viz :

Classics
 Greek.
 Greek—English.
 Latin.
 Latin—English.
 Latin—French.
 Latin—Spanish.
 English Language and Literature
 Modern Languages and Literature
 French Language and Literature
 German Language and Literature
 Russian Language and Literature
 Spanish Language and Literature
 History
 Geography
 Philosophy
 Economic and Political Science
 Mathematics

4. Candidates who have completed the courses and passed the final examinations prescribed for the Ordinary degree of Bachelor of Arts may, with the sanction of the Senate, proceed to the degree of Bachelor of Arts with Honours in any School after one or two years attendance in such School, provided that the attendance is given in the year or years immediately following the completion of their courses and examinations for the Ordinary degree.

5. No candidate for a degree of Bachelor of Arts with Honours shall be admitted more than once to examination in the same Honours School; but students who have passed the Final examination in any of the Honours Schools may be admitted to the Final examination in any other Honours School after the expiration of one or two years, on presenting certificates of having attended during the period in question, courses approved by the University.

Provided that in the said other Honours School selected, candidates shall not present themselves for the Final examination more than two academic years after the Final examination in Honours already passed by them, and also that no candidate be admitted to examination in any Honours School after a longer period than five years has elapsed since the date of his first entrance upon a prescribed course of study for an Honours School.

6. Names of candidates who have passed the examination for the degree of Bachelor of Arts with Honours shall be published in such form as to distinguish the Honours School in which severally they may have passed; the names of those who have passed in Honours being drawn up in three classes, and each class being arranged in alphabetical order.

7. Candidates who have not acquitted themselves so as to deserve Honours may be excused the whole or such part of the examinations for the Ordinary degree as the Senate may determine.

8. Candidates for the degree of Bachelor of Arts with Honours who at the end of their first year are unable to continue their Honours course may proceed to the Ordinary degree of Bachelor of Arts; and it shall be in the power of the Senate to accept their attendance on the courses prescribed for the first year in any Honours School in place of the attendance prescribed in the *Ordinance for the Ordinary degree of Bachelor of Arts, Article (2) (a)*; provided that every such candidate shall include at some stage a course and examination in Greek or Latin for not less than one year.

Regulations In Honours schools for which a qualifying examination at the end of the first year of study is prescribed such examinations will ordinarily be held in June of each year; but candidates who do not pass in all of the required subjects of a qualifying examination may be admitted to supplementary examinations held in September in the subject or subjects in which they have failed. No candidate will be admitted to a supplementary qualifying examination in any subject who has not already presented himself in his first year at the ordinary June examination in that subject, except with the special permission of the Senate

Classics

Candidates for the degree of Bachelor of Arts with Honours in Classics shall be required to pursue courses of study and to submit themselves for examination in the following subjects:

Translation from prescribed Greek and Latin books.
Translation at sight from Greek and Latin authors.
Greek and Latin Composition.
Greek and Latin Literature.

Two of the following:

Ancient History.
Ancient Philosophy.

A special subject connected with Greek or Latin literature.

Attendance in the subjects of the School shall be required as follows: Not less than ten hours a week in the first and second years, and eight hours a week in the third year.

The attendance on courses required for the first year for the Ordinary degree of Bachelor of Arts, may also be accepted by the Senate in place of the above attendance for the first year, provided that the subjects chosen by the candidate are substantially and to the satisfaction of the Board of the Faculty of Arts those required for the Course for the first year in the Honours School of Classics.

Examination

- Greek prose composition (1 paper).
- Latin prose composition (1 paper).
- Greek unprepared translation (1 paper).
- Latin unprepared translation (1 paper).
- Translation from prescribed Greek books, with questions arising out of them (2 papers).
- Translation from prescribed Latin books, with questions arising out of them (2 papers).
- General paper (Greek), including questions on Greek literary criticism, antiquities, syntax and metre.
- General paper (Latin), including questions on Latin literary criticism, syntax and metre, and on Roman antiquities.
- Two of the following:
 - Ancient History (1 paper).
 - Ancient Philosophy (1 paper).
 - Special subject in Greek or Latin Literature (1 paper).
- Greek and Latin Verse Composition (1 paper) (optional).

Honours Classics:

GREEK:

Books prescribed for 1931-32

Homer, *Odyssey* i-vi; *Iliad* 1, vi; Aeschylus, *Prometheus Vinculus*, *Agamemnon*; Sophocles, *Antigone*; Euripides, *Bacchae*; Aristophanes, *Frogs*; Herodotus viii; Thucydides, *iii; Plato, *Phaedo*; Greek Lyric and Elegiac Poetry (selections); Demosthenes, *De Corona*; Aristotle, *Poetics*; Theocritus, i, ii, vii, xv.

LATIN:

Books prescribed for 1931-32

(a) Plautus *Mostellaria*, Virgil *Aeneid* ii, Horace *Odes* ii, iii, Juvenal *i, *iii, *v, *x, *xi, *xiv, Tacitus *Histories* iii, Pliny *Letters* vi.

- (b) Lucretius I, Catullus (Simpson, Macmillan, with omissions), Virgil *Georgics*, Horace *Epistles* ii, *Ars Poetica*, Cicero *Letters* (Tyrrell's edition, Macmillan, omitting 11, 12, 21, 24, 25, 35-7, 55-8, 62-5), Livy ii, Tacitus *Annals* iv.

Books prescribed for 1932-33

- (a) Plautus **Mostellaria*, Virgil **Georgics* i, ii, Horace **Epistles* i, Tacitus **Annals* iv. Juvenal **i*, **iii*, **v*, **x*, **xi*, **xiv*, Cicero **pro Sestio*.
- (b) Lucretius i, Catullus (Simpson, Macmillan, with omissions), Virgil *Georgics* iii, iv, Horace *Odes* ii, iii, *Ars Poetica*, Cicero's *Letters* (Tyrrell's edition, Macmillan, omitting 11, 12, 21, 24, 25, 35-7, 55-8, 62-5), Lucan vii, Livy i, Pliny *Letters* vi.

N.B.—The books marked with an asterisk are to be studied with special care in all their bearings, including criticism of the text.

Greek

Candidates for the degree of Bachelor of Arts with Honours in Greek shall be required to pursue courses of study and to submit themselves for examination in the following subjects:—

1. The Greek books prescribed for Honours in Classics (2 papers).
2. Translation from further Greek authors. (1 paper).
3. General paper as for Honours in Classics. (1 paper).
4. Greek unprepared translation. (1 paper).
5. Greek prose composition. (1 paper).
6. A period of Greek history to be studied in connexion with the original authorities. (1 paper).
7. Development of the Greek language with an elementary knowledge of the dialects. (1 paper).
8. One of the following (1 paper):—
 - (a) History of Greek syntax.
 - (b) Outlines of Greek philosophy.
 - (c) Greek life and manners (with some reference to Inscriptions).
 - (d) The special study of an author or one of the following types of literature:—(1) Homeric poems; (2) Greek lyric poetry; (3) Greek drama in the 5th century; (4) Greek oratory, with special reference to Demosthenes.
 - (e) Greek sculpture or vase painting.
 - (f) Greek art and architecture.
 - (g) Greek verse composition.

Attendance in the subjects of the school shall be required as follows. During the first year not less than 7 hours a week, during the second year not less than 9 hours a week and during the third year not less than 7 hours a week.

Candidates (other than those who have already completed the course for an Honours degree in Latin) may, in place of a certain number of the books prescribed in Greek, be permitted to substitute a certain number of the books prescribed for the course in Honours in Latin to be specified from year to year.

Special requirements —

- (1) Candidates are required to attend at least a Two Years course in Latin as prescribed in the Regulations for the Ordinary degree and pass the prescribed examination in that subject. *
- (2) Candidates are required to attend at least One Year courses and to pass the prescribed examinations in
(a) Ancient History and (b) *one* of the following subjects :—
English, French, German or any other subject approved by the Board of the Faculty of Arts.

Some modification of the special requirements may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

Greek—English

Candidates for the degree of Bachelor of Arts with Honours in Greek—English shall be required to pursue courses of study and to submit themselves for examination in the following subjects :—

A. GREEK.

1. The Greek books prescribed for Honours in Classics. (2 papers).
2. General paper, including questions on Greek history, literary criticism, antiquities, syntax and metre. (1 paper).
3. Greek unprepared translation. (1 paper).
4. Greek prose composition. (1 paper).
5. *One* of the following (1 paper) :—
 - (a) The *Poetics* of Aristotle and history of the Greek drama.
 - (b) The development of the Greek language with an elementary knowledge of the dialects.
 - (c) Outlines of Ancient philosophy.
 - (d) Greek Art and Architecture.
 - (e) Greek life and manners.
 - (f) Latin unprepared translation to the Three Years course standard, together with certain books prescribed by the Board of the Faculty of Arts.

B. ENGLISH, as for English (Modern Languages Honours).

Attendance in the subjects prescribed for the above degree shall be required as follows:—Not less than 10 hours a week in the first and second years and 8 hours a week in the third.

Special requirement.

Students will be required to attend a one year course in one additional subject as prescribed in the Regulations for the Ordinary degree of Bachelor of Arts, and to pass the prescribed examination in that subject, which shall normally be Latin.

Some modification of the special requirement may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

Latin

Candidates for the degree of Bachelor of Arts with Honours in Latin shall be required to pursue courses of study and to submit themselves for examination in the following subjects:—

1. The Latin books prescribed for Honours in Classics (2 papers).
2. Translation from further Latin authors. (1 paper).
3. General paper as for Honours in Classics (1 paper).
4. Latin unprepared translation. (1 paper).
5. Latin prose composition. (1 paper).
6. A period of Roman history studied in connexion with the original authorities. (1 paper).
7. Development of the Latin language with an elementary knowledge of the Italic dialects. (1 paper).
8. *One of the following (1 paper):—*
 - (a) History of Latin syntax from Plautus to Tacitus.
 - (b) Stoicism and Epicureanism in Roman life and thought.
 - (c) Roman life and manners (with some reference to inscriptions).
 - (d) A special study of an author or part of an author or *one* of the following types of literature:—(i.) epic poetry, with special knowledge of the fragments of Livius Andronicus, Naevius and Ennius; (ii.) satire, with special knowledge of the fragments of Lucilius; (iii.) dramatic poetry with special knowledge of the fragments of Latin dramatic poetry; (iv.) oratory, with special knowledge of the fragments of Latin oratory.
 - (e) Latin verse composition.
 - (f) Greek Art and Architecture.

Attendance in the subjects of the school shall be required as follows:—During the first year not less than seven hours a week, during the second year not less than nine hours a week, and during the third year not less than seven hours a week.

Candidates (other than those who have already completed the course for an Honours degree in Greek) may, in place of a certain number of the books prescribed in Latin, be permitted to substitute a certain number of the books prescribed for the course in Honours in Greek to be specified from year to year.

Special requirements :—

- (1) Candidates are required to attend at least a Two Years course in Greek, as prescribed in the Regulations for the Ordinary degree and to pass the prescribed examinations in that subject.
- (2) Candidates are required to attend at least One Year courses and to pass the prescribed examination in (a) Ancient History and (b) one of the following subjects:—English, French, German, Spanish, any other subject approved by the Board of the Faculty of Arts.

Some modification of the special requirement may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

* Latin—English, Latin—French, Latin—Spanish

Candidates for the degree of Bachelor of Arts with Honours in any one of the above-mentioned groups of subjects shall be required to pursue courses of study and to submit themselves for examination in the following subjects :—

I. LATIN—ENGLISH.

A. Latin.

1. Latin prose composition. (1 paper).
2. Latin unprepared translation. (1 paper).
3. The Latin books prescribed for Honours in Classics. (2 papers).
4. General paper as for Honours in Classics. (1 paper).
5. One of the following (1 paper) :—
 - (a) Colloquial Latin and inscriptions.
 - (b) Development of the Latin language with an elementary knowledge of the Italic dialects.
 - (c) A period of imperial history.
 - (d) Outlines of Ancient Philosophy.
 - (e) Roman life and manners (with some reference to inscriptions).
 - (f) Latin literary criticism.
 - (g) Greek unprepared translation to the Three Years Course standard together with the translation of certain Greek books prescribed by the Board of the Faculty of Arts.

B.—English, as for English (Modern Languages Honours).

II. LATIN—FRENCH.

A.—Latin, as under I.

B.—French, as for French (Modern Languages Honours).

III. LATIN—SPANISH.

A.—Latin, as under I.

B.—Spanish, as for Spanish (Modern Languages Honours).

Attendance in the subjects prescribed for the above degrees shall be required as follows :—Not less than ten hours a week in the first and second years and eight hours a week in the third.

Special requirement.

Students will be required to attend a One Year Course in one additional subject as prescribed in the 'Regulations for the Ordinary degree of Bachelor of Arts, and to pass the prescribed examination in that subject. For candidates in the Latin-English group this subject shall normally be Greek.

Some modifications of the special requirement may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

English Language and Literature

Candidates for the degree of Bachelor of Arts with Honours in English Language and Literature shall be required to pursue courses of study and to submit themselves for examination as follows :—

There shall be alternative schemes of study, A and B : *Scheme A*, in which special attention will be paid to Literature ; and *Scheme B*, in which special attention will be paid to Language.

Under both schemes the course of study for the first academic year shall normally include : Greek *or* Latin ; English Literature ; English Language and Early English Literature ; and any *two* of the following : a Modern Language ; Modern History ; Modern Philosophy ; Music—five subjects in all.

A qualifying examination in these subjects will be held at the end of the first year which must normally be passed by candidates before they proceed to further study.

Some modification of the course and examination required for the first year may be made, subject to the

approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

The attendance on courses required for the first year for the Ordinary degree of Bachelor of Arts, and the prescribed examinations in such courses, may also be accepted by the Senate in place of the above course and qualifying examination, provided that candidates must satisfy the head of the department of English that they possess a sufficient knowledge of English Language to enable them to profit by the subsequent courses in that subject.

Scheme A

Candidates shall be required to attend the following courses in the subjects of the School: in the first year, three hours a week in English Literature, and three hours a week in English Language; in the second year, not less than six hours a week in English Literature and Language; in the third year, not less than five hours a week in English Literature and Language.

For details of the first year courses in literature and language, see under Courses in Arts, in subsequent pages.

Final Examination

1. Translation of unseen passages in Old and Middle English, with literary and historical questions (1 paper).
2. Selected texts in Old and Middle English, with literary and historical questions suggested by them (1 paper).
3. Outlines of the history of the English language (1 paper).
4. Chaucer and the fifteenth century (1 paper).
5. Shakespeare and the Elizabethan drama (1 paper).
6. English literature from 1491 to 1660 (1 paper).
7. English literature from 1660 to 1784 (1 paper).
8. English literature from 1784 to 1914 (1 paper).
9. Literary criticism with selected texts (1 paper).
10. A special subject (1 paper).

Oral Examination.

Texts selected for 1931-32.

- (a) Selected Texts in Old and Middle English: *Beowulf* (2nd ed. Klaeber: Heath & Co.); Sweet, *Anglo-Saxon Reader* (9th ed.) Sections I and II (omitting selections

iii, v, xi, xii, xiii, xx, xxiv, xxviii); *Sir Gawain and the Green Knight* (ed. Tolkien and Gordon, Oxford); *Lay of Havelok the Dane* (ed. Skeat and Sisam, Oxford); Sisam, *Fourteenth Century Verse and Prose* (Oxford) (omitting selections iv, v, xi, xiii, xiv, xvi).

These texts will be the subjects of special courses and are proposed for study in all their bearings, literary, linguistic, and historical.

- (b) Recommended for additional reading: Unprescribed portions of Sweet, *Anglo-Saxon Reader*, Parts I and II; *Widsith* (ed. Chambers, Cambridge); *Deor's Lament*; *Waldere*. Unprescribed portions of Sisam, *Fourteenth century Verse and Prose*; Chambers and Sidgwick, *Early English Lyrics*; *The Owl and the Nightingale* (ed. Wells, Heath); *Pearl* (ed. Osgood, Heath); *Selections from Layamon's Brut* (ed. Hall, Oxford).
- (c) General knowledge of the following, which may be read in translation, will be expected: Tacitus, *Germania*; *The Mabinogion* (trans. Guest, or Ellis and Lloyd, Oxford); Geoffrey of Monmouth, *Histories of the Kings of Britain* (trans. S. Evans, Temple Classics); *The Laxdæle Saga* (trans. Press, Dent); *The Story of Burnt Njal* (trans. Dasent, Everyman); *The Saga of Grettir the Strong* (trans. Hight, Everyman); *Volsunga saga* (trans. Morris and Magnusson, Scott Library).
- (d) Outlines of the history of the English Language: knowledge of the language of all English texts prescribed in other courses. The following books are recommended for reference and for amplification of the outline given in lectures: Sweet, *A History of Language*; Jespersen, *Language*; *Wyld, *The Historical Study of the Mother Tongue*; *Wyld, *A Short History of English*; *Bradley, *The Making of English*; *Jespersen, *The Growth and Structure of the English Language*; Bradley, *The Relations between Spoken and Written Language*; *Wright, *An Elementary Old English Grammar*; *Wright, *An Elementary Middle English Grammar*; *Wright, *An Elementary Historical New English Grammar*; Wyld, *A History of Modern Colloquial English*; Jespersen, *Modern English Grammar*, Kellner, *Historical Outlines of English Syntax*; Bradley, *Article on Shakespeare's language in Shakespeare's England*; Franz, *Shakespeare Grammatik*; Abbott, *Shakespearean Grammar*; *Schipper, *A Short History of English Versification*; Sweet, *The Sounds of English*; Bosworth and Toller, *An Anglo-Saxon Dictionary* (with supplement); **The Oxford English Dictionary*.

Books marked * are indispensable, and should be used by every student.

- (e) Chaucer: general knowledge of the complete works, and of their language and metre, with special study of *Troilus and Criseyde*, *The Parlement of Foules*, *The Reves Tale*, *The Knights Tale*.
- (f) Shakespeare and the Elizabethan drama. Candidates will be expected to have read widely in Shakespeare and in the chief Elizabethan dramatists. For the examinations in 1932 and 1933 a special study of the text of the following plays will be required: 2 *Henry IV*, *Troilus and Cressida*, *King Lear*, *The Tempest*.
- (g) Literary criticism. The following texts are specially recommended for study: Aristotle, *Poetics*; Horace, *Ars Poetica*; Longinus, *On the Sublime*; Dante, *De Vulgari Eloquentia*; du Bellay, *Deffence et Illustration de la Langue françoise*; Sidney, *Apologie for Poetrie*; Ben Jonson, *Discoveries*; Dryden, *Essay of Dramatic Poesy*, *Preface to the Fables*; Boileau, *L'Art poétique*; Pope, *Essay on Criticism*; Johnson, *Preface to Shakespeare*, *Lives of the Poets*; Burke, *On the Sublime and Beautiful*; Lessing, *Laokoön*; Wordsworth, *Prefaces to Lyrical Ballads*; Shelley, *Defence of Poetry*; Coleridge, *Biographia Literaria*; Hazlitt, *Lectures on the English Poets*; Victor Hugo, *Préface de Cromwell*; Arnold, *Essays in Criticism*; *Shakespeare Criticism*, ed. D. Nichol Smith (World's Classics).
- (h) Special subject: English poetry from 1860 with a special study of the Pre-Raphaelites, Meredith, Hardy, and Yeats.

Scheme B

Candidates shall be required to attend the following courses in the subjects of the School: (i) during three academic years courses in English Language, including the History of the Language and Early English prose and verse, such courses amounting to not less than three hours a week for the first year and not less than four hours a week for the second and third years; (ii) during three academic years courses of three hours a week on period of English Literature.

Candidates shall also be required to attend an approved course in one of the following subjects: Gothic, Old Icelandic, Modern Icelandic, Old High German, Old French, Vedic Philology, Mediaeval Welsh, Russian and Old Bulgarian, Greek Philology, Latin Philology, Elementary Palaeography.

First year courses in English Language: as for Scheme A.

Final Examination

1. Translation of unseen passages in Old and Middle English, with literary, historical, and linguistic questions (1st paper).
2. Old and Middle English Philology (1 paper).
3. Selected texts in Old and Middle English, with literary, historical and linguistic questions suggested by them (2 papers)
4. Chaucer (1 paper).
5. Shakespeare and the Elizabethan drama, (1 paper).
6. Outlines of the history of English literature (1 paper).
7. History of the English language, with reference to allied languages and to the general principles of linguistic study (1 paper).
8. A paper on *one* of the following: Gothic, Old Icelandic, Modern Icelandic, Old High German, Old French, Vedic Philology, Mediaeval Welsh, Russian and Old Bulgarian, Greek Philology, Latin Philology, Elementary Old and Middle English Palæography.

Oral examination.

In addition Candidates shall be required to offer one of the above subjects (Gothic, Old Icelandic, &c.) not already taken, or to present a dissertation on a subject approved by the Board of the Faculty of Arts.

- * NOTE:—Students are requested to give notice of their choice of subject, or subjects, not later than the beginning of their second year. Courses in Old Icelandic and Gothic are given in the department each year; courses in any other of the above subjects may be arranged through the professor of English Language.

Texts for 1931-32

- (a) Selected Texts in Old and Middle English: *Beowulf* (ed. Klaeber: Heath and Co); *Widsith*; *Waldere*; *Deor's Lament*; *Finnsburh fragment*: Sweet's *Anglo-Saxon Reader*; Sweet's *Second Anglo-Saxon Reader* (selections); *Sir Gawain and the Green Knight* (ed. Tolkien and Gordon); *Lay of Havelok the Dane* (ed. Skeat and Sisam, Oxford); Sisam, *Fourteenth Century Verse and Prose* (Oxford); *The Owl and the Nightingale* (ed. Wells); Hall, *Early Middle English*, Pt. I. (Oxford).
- (b) Additional texts (recommended for voluntary reading): *The Later Genesis* (ed. Klaeber, Heidelberg); *Selections from Layamon's Brut* (ed. Hall, Oxford); *Anglo-Saxon Chronicle* (ed. Plummer, Oxford); Ælfric, *Lives of Saints* (ed. Skeat, E.E.T.S., Nos. xii, xiv, xix, xx, xxi,

xxiii, xxiiib, xxxii and Preface); *Middle English Humorous Tales in Verse* (ed. McKnight, Heath); *Morte Arthure* (ed. Björkman, Heidelberg); *Piers the Plowman*; Henryson, *Poems*; Dunbar, *Poems*; *Floris and Blancheflur*, ed. Taylor, Oxford; *Pearl*, ed. Osgood, Heath.

- (c) General knowledge will be expected of the following, which should be read in the original, if possible: See Texts for Scheme A, section (c) and add *Heimskringla* (Everyman, 2 vols.); *Snorra Edda* (trans. Brodeur); *Nibelungenlied* (trans. Armour, Everyman); Saxo Grammaticus, *Gesta Danorum* (trans. Elton).
- (d) Chaucer as for Scheme A.
- (e) The history of the English language: knowledge of language of all English texts prescribed in other courses. The following books are recommended for reference and amplification of the outline given in lectures: see texts for Scheme A, Section (d) and add: Jespersen, *The Philosophy of Grammar*; Sapir, *Language*; Child, *The Aryans*; Brugmann, *Kurzgefasste Indogermanische Grammatik* (or trans into French as *Abregée de Grammaire comparée*); Meillet, *Introduction à l'Etude comparative des Langues Indo-européennes* (6th ed.); Hirt, *Indogermanische Vokalismus* (vol. 2 of his *Indogermanische Grammatik*); Streitberg, *Urgermanische Grammatik*; Kluge, *Urgermanisch*; *Wright, *Old English Grammar* (3rd ed.); *Sievers, *Grammar of Old English*, trans. Cook; Bülbring, *Altenglisches Elementarbuch*; Jordan, *Handbuch der Mittelhochdeutschen Grammatik*; Luick, *Historische Grammatik der Englischen Sprache*; Björkman, *Scandinavian Loanwords in Middle English*; Vising, *Anglo-Norman*; The Place-Name Society's *Introduction to the Survey of English-Place-Names*; Sievers, *Altgermanische Metrik*; Sweet, *A Primer of Phonetics*.
- (f) Outlines of the History of English Literature: A general knowledge of English Literature from the earliest times with selected texts. The texts in medieval literature are those recommended in sections (a), (b) and (c) above. The texts in modern literature are those which candidates have been recommended to read while taking courses IA, IIA and IIIA.
- (g) Shakespeare and the Elizabethan drama: as for Scheme A.
- (h) Old Icelandic: Gordon, *Introduction to Old Norse* (Oxford); *Bandamanna saga*; *Gísla saga Súrssonar*; Zoega, *Old Icelandic Dictionary*; Noreen, *Altisländische und altnorwegische Grammatik* (4th ed.); *Geschichte der nordischen Sprachen*; Ker, *Epic and Romance*.

- (i) Modern Icelandic: Jónsson, *A Primer of Modern Icelandic*; Nordal, *Íslensk Lestrarbók*; Thoroddsen, *Maður og Kona*; Johann Sigurjónsson, *Fjalla-Eyvindur*; Brynjólfur Jónsson, *Natans saga Ketilssonar og Skáld-Rósu*; Zoega, *Íslensk-Ensk Orðabók*.
- (k) Gothic: Wright, *Gothic Grammar* (Oxford); Bradley, *The Goths*; Streitberg, *Gotische Bibel*; *Gotische Elementarbuch* (5/6 ed.); Kieckers, *Vergleichende Grammatik der Gotischen Sprache*.
- (l) Vedic Philology: Macdonell, *A Vedic Grammar for Students* (Oxford); *A Vedic Reader for Students* (Oxford).
- (m) Mediaeval Welsh: Strachan, *An Introduction to Early Welsh*; *Mabinogion*, ed. Ivor Evans, 1930.
- (n) Greek Philology: Meillet, *Aperçu d'une histoire de la langue grecque* (Paris, 1930); Meillet, *Traité de grammaire comparée des langues classiques* (Paris, 1927); Buck, *Greek Dialects* (Boston, 1927); Thumb, *Handbuch der griechischen Dialekte* (Heidelberg, 1909).
- (o) Latin Philology: Meillet, *Esquisse d'une Histoire de la langue Latine* (Paris, 1928), Lindsay, *Short Historical Latin Grammar* (Oxford); Ernout, *Recueil de Textes Latins Archaïques* (Paris, 1916).
- (p) Russian and Old Bulgarian: Forbes, *Russian Grammar* (Oxford); Meyer, *Historische Grammatik der russischen Sprache* (Bonn, 1923); Leskien, *Handbuch der altbulgarischen sprache*; Dearmer and Tananevich, *First Russian Reader* (Oxford), Duff, *Russian Lyrics* (Cambridge).
- (q) Old and Middle English Paleography: Keller, *Angelsächsische Paleographie*; Maunde Thompson, *Introduction to Greek and Latin Palaeography*; Johnson and Jenkinson, *English Court Hand 1066-1500*.

Modern Languages and Literatures

Candidates for the degree of Bachelor of Arts with Honours in Modern Languages shall be required to pursue courses of study and to submit themselves for examination in any *two* of the following subjects: French, German, English, Spanish, Russian.

Candidates shall also be required to study auxiliary subjects, of which Latin or Greek shall ordinarily form part. Exemptions may be granted to specially qualified candidates.

The names of candidates, who, being placed in the First or Second Class, have shown conspicuous merit shall be distinguished in the class list by some mark to indicate the subject or subjects in which they have shown such merit.

I. FRENCH OR GERMAN OR SPANISH OR RUSSIAN.

The course of study and subjects of examination in French or German or Spanish or Russian shall be : Prescribed texts of various periods, studied from a literary and linguistic standpoint ; literature ; history of the language ; translation ; institutions.

Candidates taking French or German or Spanish or Russian shall be required to attend all the lectures in the two subjects selected from the Honours School.

II. ENGLISH :

For students in the Honours School of Modern Languages there shall be in the English portion of their course alternative schemes of study, A and B, related to the schemes of study in the Honours School of English. In Scheme A, special attention will be paid to Literature. In Scheme B, special attention will be paid to Language (including the literary and linguistic study of Old and Middle English).

Candidates will be required to attend :—

- (i) During their first year, courses of not less than three hours a week in English Language, and three hours a week in English Literature and Composition ;
- (ii) During their second and third years, courses of not less than five hours a week in English Language and Literature, the proportion to be determined by the Candidate's choice of scheme and of subjects within the scheme.

Examination

The examination in each subject of the School shall consist of an oral examination and of the following papers .

FRENCH OR GERMAN :

Composition and essay (1 paper).

Unprepared translation (1 paper).

Prescribed texts of before 1500, with literary and linguistic questions (1 paper).

Prescribed texts of after 1500, with literary and linguistic questions (1 paper).

Literature (1 paper).

Grammar: history of the language and versification (1 paper).

RUSSIAN :

Composition and essay (1 paper).

Unprepared translation (1 paper).

Prescribed texts before 1500, with literary and linguistic questions (1 paper).

Prescribed texts of after 1500, with literary and linguistic questions, The history of the language (1 paper).

Prescribed texts of XIX century literature, with literary questions (1 paper).

Russian history and the history of Russian literature (1 paper)

SPANISH :

Composition and essay (1 paper).

History and institutions of Spain and unprepared translation (1 paper).

Prescribed texts of before 1500, with literary and linguistic questions (1 paper).

Prescribed texts of after 1500, with literary and linguistic questions (1 paper).

Literature (1 paper)

Grammar. history of the language and versification (1 paper).

ENGLISH. SCHEME A.

Translation of unseen passages in Old and Middle English (as for Honours English Scheme A) (1 paper).

Selected texts in Old and Middle English (as for Honours English Scheme A) (1 paper).

One paper selected from the following :—

Chaucer and the fifteenth century (1 paper).

Shakespeare and the Elizabethan drama (1 paper).

Three papers selected from the following :—

English literature from 1491 to 1660 (1 paper).

English literature from 1660 to 1784 (1 paper).

English literature from 1784 to 1914 (1 paper).

Literary criticism, with selected texts (1 paper).

ENGLISH. SCHEME B.

Translation of unseen passages in Old and Middle English (as for Honours English Scheme A), (1 paper).

Selected texts in Old and Middle English (as for Honours English Scheme A) (1 paper).

Outlines of the history of English language (as for Honours English Scheme A) (1 paper).

Outlines of the history of English literature (as for Honours English Scheme B) (1 paper).

One paper selected from the following :—

Chaucer (as for Honours English Scheme A) (1 paper).

Shakespeare and the Elizabethan drama (as for Honours English Scheme A) (1 paper).

A paper on one subject selected from the following :—

Germanic Philology, with special reference to Old English ; Old and Middle English Philology (as for Honours English Scheme B) ; or any of the special subjects laid down for English Honours Scheme B, except that candidates taking French may not select Old French, and candidates taking German may not select Old High German, and candidates taking Russian may not select Russian and Old Bulgarian.

I. FRENCH HONS.

Books and Periods prescribed for 1931-32

Books before 1500 : A certain number of texts including *Le vauv palefroi* ; Bérout, *Tristan* ; Chrétien de Troyes, **Guillaume d'Angleterre* ; *Maistre Pathelin*.

Books after 1500 : Selected authors of the Sixteenth Century ; Corneille, *Le Cid*, *Polyeucte* ; Molière, *Le Misanthrope*, *Les Femmes Savantes* ; Racine, *Britannicus* ; Pascal, *Provinciales* ; Rousseau, *Lettre sur les Spectacles* and *Extraits* ; Victor Hugo, *Notre Dame* ; Leconte de Lisle, *Poèmes Barbares*.

Periods of Literature .

(a) La comédie française de 1550 à 1700.

(b) La tragédie française de 1550 à 1700.

(c) Le roman à l'époque romantique (1820-50).

II. GERMAN HONS.

Books and Periods prescribed for 1931-32

Books before 1500 : Braune, *Althochdeutsches Lesebuch*, ii, iv, vi, ix, xv, xvi (1-8), xvii, xxiii (1-5), xxviii-xxxi, xxxii (1, 4, 21), xxxiii, xxxiv, xxxvi, xxxviii ; Bartsch, *Das Nibelungenlied* (Deutsche Klassiker des Mittelalters), *Liederaichter*, xxi ; Hartmann, *Der arme Heinrich* (Paul) ; *Kudrun* (Sammlung Göschen).

Books after 1500 : Keller, *Ausgew. Werke des Hans Sachs* (Diesterweg, Frankfurt) ; Goethe, *Faust I*, ed. Thomas, and *Egmont* (Clarendon Press) ; Hebbel, *Nibelungen* Lessing, *Emilia Galotti* and *Nathan der Weise* ; Grillparzer, *Der Traum ein Leben* ; Schiller, *Wilhelm Tell* and *Maria Stuart* ; Kleist, *Prinz Friedrich von Homburg* ; Fiedler, *Book of German Verse* (Clarendon Press) ; Hauptmann, *Der Biberpelz* and *Die versunkene Glocke*.

Period of Literature : 1740-1832.

French Language and Literature

Candidates for the degree of Bachelor of Arts with Honours in French Language and Literature shall be required to pursue courses of study and to submit themselves for examination as follows :—

The course of study for the first academic year shall normally include the following four subjects : (1) French Language and Literature ; (2) Latin, German, *or* Spanish ; (3) a second subject from (2) *or* English Literature, Economics, *or* another approved subject ; (4) Modern History with special reference to France.

A qualifying examination in these subjects will be held at the end of the first year which must normally be passed by candidates before they proceed to further study.

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate, but all candidates will be required to attend the lectures on Modern History with special reference to France.

During the second year candidates shall be required to attend courses in the subjects of the School of not less than eight hours a week, such courses to include lectures on (a) French Institutions, (b) the Geography of France.

The third term of the second year will normally be spent at the University of Caen or some other approved French University.

During the third year candidates shall be required to attend courses in the subjects of the School of not less than eight hours a week, such courses to include additional lectures on Literature.

Candidates may be required in any year to attend courses of lectures given in other Departments which may be helpful to their studies in the subjects of the School.

In addition to the subjects of the School, each candidate will be required to pursue a prescribed course in one other subject included in the Faculty of Arts and

approved by the head of the department of French, for a period extending over three years. At the end of his third year, he must present himself for examination in this subsidiary subject as for a three years subject for the Ordinary degree of Bachelor of Arts. The Class obtained by him in the Honours School will not be published until he has satisfied the examiners in this subsidiary subject ; but in the event of his failure to do so, he may present this subject alone at any subsequent examination.

Final Examination

The examination shall consist of an oral examination and of the following papers :—

- Prescribed texts of before 1500 with literary and linguistic questions (1 paper).

- Prescribed texts of after 1500 with literary and linguistic questions (1 paper).

- Essay and composition (1 paper).

- Unprepared translation (1 paper).

- History of the language and versification (1 paper).

- Literature (2 papers).

- History and institutions of France (1 paper).

In addition, candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.

German Language and Literature

Candidates for the degree of Bachelor of Arts with Honours in German Language and Literature shall be required to pursue courses of study and to submit themselves for examination as follows :—

The course of study for the first academic year shall normally include the following four subjects : (1) German Language and Literature ; (2) Latin, French *or* English Language ; (3) a second subject from (2), *or* English Literature, Economics, *or* another approved subject ; (4) Modern History with special reference to Germany.

A qualifying examination in these subjects will be held at the end of the first year which must normally be passed by candidates before they proceed to further study.

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate,

but all candidates will be required to attend the lectures on Modern History with special reference to Germany.

During the second year candidates shall be required to attend courses in the subjects of the School of not less than eight hours a week, such courses to include lectures on (a) German Institutions, (b) the Geography of Germany.

The third term of the second year will normally be spent at some University where the medium of intercourse is German.

During the third year candidates shall be required to attend courses in the subjects of the School of not less than eight hours a week.

Candidates may be required in any year to attend courses of lectures given in other departments which may be helpful to their studies in the subjects of the School.

In addition to the subjects of the School, each candidate will be required to pursue a prescribed course in one other subject included in the Faculty of Arts and approved by the head of the department of German for a period extending over three years. At the end of his third year, he must present himself for examination in this subsidiary subject as for a three years subject for the Ordinary degree of Bachelor of Arts. The Class obtained by him in the Honours School will not be published until he has satisfied the examiners in this subsidiary subject; but in the event of his failure to do so, he may present this subject alone at any subsequent examination.

Final Examination

The examination shall consist of an oral examination and of the following papers:—

Prescribed texts of before 1500 with literary and linguistic questions (1 paper).

Prescribed texts of after 1500 with literary and linguistic questions (1 paper).

Essay and composition (1 paper).

Unprepared translation (1 paper).

History of the language and versification (1 paper).

Literature (2 papers).

History and institutions of Germany (1 paper).

In addition, candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.

Russian Language and Literature

Candidates for the degree of Bachelor of Arts with Honours in Russian Language and Literature shall be required to pursue courses of study and to submit themselves for examination as follows :—

The course of study for the first academic year shall normally include the following four subjects : (1) Russian Language and Literature ; (2) Greek, Latin, French, German, *or* English Language ; (3) a second subject from (2), *or* English Literature, Economics, *or* another approved subject ; (4) Modern History with special reference to Russia, the history and geography of Russia.

A qualifying examination in these subjects will be held at the end of the first year which must normally be passed by candidates before they proceed to further study.

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate, but all candidates will be required to attend the lectures on Modern History with special reference to Russia.

During the second year candidates shall be required to attend courses in the subjects of the School of not less than eight hours a week, such courses to include lectures on (a) Old Church Slavonic, (b) the History of Literature up to 1800.

The third term of the second year will normally be spent at some University where the medium of intercourse is either Russian or any other Slavonic language.

During the third year candidates shall be required to attend courses in the subjects of the School of not less than eight hours a week.

Candidates may be required in any year to attend courses of lectures given in other departments which may be helpful to their studies in the subjects of the School.

In addition to the subjects of the School, each candidate will normally be required to pursue a prescribed course in one other subject included in the Faculty of

Arts and approved by the head of the department of Russian, for a period extending over three years. The candidate must present himself for examination in this subsidiary subject as for a three years subject for the Ordinary degree of Bachelor of Arts. The Class obtained by him in the Honours School will not be published until he has satisfied the examiners in this subsidiary subject ; but in the event of his failure to do so, he may present this subject alone at any subsequent examination.

Final Examination

The examination shall consist of an oral examination and of the following papers :—

Old Church Slavonic :

Prescribed texts from Ostromirov Evangelie to be translated into Russian ; Philology (1 paper).

The History and philology of the Russian Language :

An outline of the Slavonic group of languages in Europe and their geographical distribution (1 paper).

Prescribed texts of after 1500 with literary and linguistic questions (1 paper).

Essay and composition (1 paper).

Unprepared translation (1 paper).

Literature (2 papers).

History, especially social history, of Russia (1 paper).

(Candidates will be required to show such a knowledge of the outlines of Social History of Russia as is necessary to the understanding of the Literature ; also the influence of English, French and German Philosophy and Literature on the Russian Literature and Social Ideals.)

In addition, candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.

Spanish Language and Literature

Candidates for the degree of Bachelor of Arts with Honours in Spanish Language and Literature shall be required to pursue courses of study and to submit themselves for examination as follows :—

The course of study for the first academic year shall normally include the following four subjects : (1) Spanish Language and Literature ; (2) Latin, French, *or* English Language ; (3) a second subject from (2), *or* English Literature, Economics, *or* another approved subject ; (4) Modern History with special reference to Spain.

A qualifying examination in these subjects will be held at the end of the first year which must normally be passed by candidates before they proceed to further study.

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate, but all candidates will be required to attend the lectures on Modern History with special reference to Spain.

During the second year candidates shall be required to attend courses in the subjects of the School not less than eight hours a week, such courses to include lectures on (a) Spanish Institutions, (b) the Geography of Spain.

The third term of the second year will normally be spent at some University where the medium of intercourse is Spanish.

During the third year candidates shall be required to attend courses in the subjects of the School of not less than eight hours a week.

Candidates may be required in any year to attend courses of lectures given in other departments which may be helpful to their studies in the subjects of the School.

In addition to the subjects of the School, each candidate will be required to pursue a prescribed course in one other subject included in the Faculty of Arts and approved by the head of the department of Spanish for a period extending over three years. At the end of his third year, he must present himself for examination in this subsidiary subject as for a three years subject for the Ordinary degree of Bachelor of Arts. The Class obtained by him in the Honours School will not be published until he has satisfied the examiners in this subsidiary subject; but in the event of his failure to do so, he may present this subject alone at any subsequent examination.

Final Examination.

The examination shall consist of an oral examination and of the following papers:—

Prescribed texts of before 1500 with literary and linguistic questions (1 paper).

Prescribed texts of after 1500 with literary and linguistic questions (1 paper).

Essay and composition (1 paper).

Unprepared translation (1 paper).

History of the language and versification (1 paper).

Literature (2 papers).

History and institutions of Spain (1 paper).

In addition candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.

History

Candidates for the degree of Bachelor of Arts with Honours in History shall be required to pursue courses of study and to submit themselves for examination as follows :—

The course of study for the first academic year shall normally include the following five subjects : (1) Greek *or* Latin ; (2) French *or* German ; (3) History ; (4) Economics ; (5) Set Books in History.

A qualifying examination in these subjects will be held at the end of the first year, which must normally be passed by candidates before they proceed to further study.

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

The attendance on courses required for the first year for the Ordinary degree of Bachelor of Arts, and the prescribed examinations in such courses, may also be accepted by the Senate in place of the above course and qualifying examination.

At the end of the second academic year candidates will be examined as follows :

Honours Examination (Part I)

Outlines of European History (2 papers).

Colonial History (1 paper).

Materials for Historical Research (1 paper).

Candidates must satisfy the examiners in this examination before proceeding with further study.

At the end of the third year candidates will take the following examination :

Honours Examination (Part II)

Essay in General History (1 paper).

English (including Constitutional) History (2 papers).

Special period, studied in connection with the original authorities (2 papers).

Political theory (1 paper).

In addition, candidates shall be required to present a dissertation on some subject approved by the Board of the Faculty of Arts.

- Candidates shall also be required to show in the examination some knowledge of at least one foreign language (ancient or modern).

Oral Examination.

Special Periods for 1931-32

- (1) Roman History, 44 B.C.-14 A.D.; (2) The Reign of Richard II; (3) The Reign of James I; (4) English History, 1688-1714.

The following is the list (subject to revision) of the original authorities set for the Honours periods:

1. Selections from Cicero's Letters and Speeches; Suetonius, *Augustus*; Velleius Paterculus, *Historia Romana*, book ii; *Res Gestae Divi Augusti*; selected Inscriptions illustrating the period.
2. Selected passages from Walsingham, *Historia Anglicana* (Rolls Ser.); Knighton, *Chronicon* (Rolls Ser.); Malverne's Chronicle in Higden, *Polychronicon*, vol. ix (Rolls Ser.); *Annales Ricardi Secundi* (Rolls Ser.); Calendars of Patent and Close Rolls; Rolls of Parliament, vol. iii.
3. Selections from *Calendar of State Papers (Domestic)*, 1603-10; ditto (*Venetian*) 1617-19; Selected items in Tanner: *Constitutional Documents of the Reign of James I*; *Hardwicke State Papers*, vol. i, pp. 377-566; *Somers Tracts* (ed. 1809-15), vol. ii, pp. 97-117; 262-304; 408-458; 492-555; vol. iii, pp. 259-304; *Diary of Walter Yonge* (Camd. Soc.).
4. Burnet's *History of his Own Time* (1833 ed.), vol. iii, p. 260, to vol. iv, p. 377; *Calendar of State Papers (Domestic)*, 1691-2, selected portions; Grant Robertson, *Statutes, Cases and Documents*, relevant documents; selections from Bonet's dispatches in Ranke's *History of England in the Seventeenth Century*, vol. vi, appendix; *Portland Mss.*, vol. v, pp. 378-478; Swift, *The Conduct of the Allies*.

Geography

Candidates for the degree of Bachelor of Arts with Honours in Geography shall be required to pursue courses of study and to submit themselves for examination as follows:—

The course of study for the first academic year shall normally include the following five subjects: (1) Geography; (2) A language other than English; (3) Economics; (4) Geology; (5) Modern History *or* Physics *or* Mathematics *or* a second approved foreign language.

A qualifying examination in these subjects will be held at the end of the first year, which must normally be passed by candidates before they proceed to further study.

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

The attendance on courses required for the first year for the Ordinary degree of Bachelor of Arts, and the prescribed examinations in such courses, may also be accepted by the Senate in place of the above course and qualifying examination.

During the second year of their course, candidates shall be required to attend an approved course in either History or Economics.

At the end of the second academic year, candidates will be examined as follows:—

SCHEME A.*Honours Examination (Part I)*

Physical Geography	.. ..	(1 paper).
General and Regional Geography	.. ..	(1 paper).
Principles of Human Geography	.. ..	(2 papers).
Either History or Economics	.. ..	(1 paper).

*or***SCHEME B.***Honours Examination (Part I)*

Physical Geography	.. ..	(1 paper).
General and Regional Geography	.. ..	(1 paper).
Principles of Human Geography	.. ..	(1 paper).
Economics	.. ..	(1 paper).
Economic History	.. ..	(1 paper).

Candidates must satisfy the examiners in this examination before proceeding with further study.

At the end of the third year, candidates will be examined as follows :—

SCHEME A.

Honours Examination (Part II)

Essay	.. ..	(1 paper).
General and Regional	.. ..	(2 papers).
Human Geography	.. ..	(3 papers).
Oral and practical examination.		

or

SCHEME B.

Honours Examination (Part II)

Essay	.. ..	(1 paper).
Human Geography	.. ..	(1 paper).
A Special Region		(1 paper).
A Selected Industry		(1 paper).
International Trade		(1 paper).
Oral and practical examination		

In addition, candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.

N.B.—Candidates shall be required to show in the examination a knowledge of at least one modern foreign language.

Philosophy

Candidates for the degree of Bachelor of Arts with Honours in Philosophy shall be required to pursue courses of study, and to submit themselves for examination as follows :—

The course of study for the first academic year shall normally include the following four subjects :—(1) Logic ; (2) A second philosophical subject ; (3) Greek or Latin ; (4) a second non-philosophical subject.

A qualifying examination in these subjects will be held at the end of the first year, which must normally be passed by candidates before they proceed to further study.

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

Subject to the approval of the Board of the Faculty of Arts, suitably qualified candidates may be permitted to vary the course of study required for the first year.

During the second and third years candidates shall be required to attend approved courses in Philosophy of not less than five hours a week in each year.

They shall also be required to attend, during the second and third years, approved courses of lectures on subsidiary subjects, the number of lectures amounting to not less than two hours a week in each year.

Examination

Essay (1 paper).

General Questions (1 paper).

Logic, Deductive and Inductive (1 paper).

Psychology (1 paper).

Ethics (1 paper).

Advanced Psychology or Moral and Political Philosophy, (1 paper).

Either History of Ancient Philosophy (1 paper), and 2 papers on *one* of the following:

Descartes, Malebranche, Spinoza.

Spinoza and Leibniz.

English Philosophy from Locke to Hume, with reference to Bacon and Hobbes and to Reid and the Scottish Philosophy.

Kant

Some other subject approved by the Board of the Faculty of Arts.

Or, History of Modern Philosophy (1 paper), and 2 papers on *one* of the following:

Greek Philosophy before Socrates.

Socrates and Plato.

Aristotle.

Post-Aristotelian Philosophy.

Some other subject approved by the Board of the Faculty of Arts.

Economic and Political Science

Candidates for the degree of Bachelor of Arts with Honours in Economic and Political Science shall be required to pursue courses of study and to submit themselves for examination as follows:—

The courses of study and the examinations for the first academic year shall normally be the same as for the Ordinary degree of Bachelor of Arts, provided that at least one of the following subjects must be included: (1) Economics; (2) Logic.

Some modification of the courses and examinations required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

During the second and third years candidates shall be required to attend approved courses in the subjects of the school of not less than five hours a week in each year.

They shall also be required to attend, during the second and third years, approved courses of lectures on subsidiary subjects, the number of lectures amounting to not less than two hours a week in each year.

Examination

Essay (1 paper).

Principles of Economics (2 papers).

Industrial Relations (1 paper).

History of Economic Theory (1 paper).

Economic History (1 paper).

Political Theory (1 paper).

Constitutional Law (1 paper).

A special Economic subject (1 paper).

In addition, candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.

Mathematics

Candidates for the degree of Bachelor of Arts with Honours in Mathematics shall be required to pursue courses of study and to submit themselves for examination as follows :—

The course of study shall include, in addition to the Special Honours courses in Mathematics, not less than *three* of the subjects, other than Mathematics, approved in the *Regulations for the Ordinary degree of Bachelor of Arts, Article I (a) and (b)*, at least one of which shall be Greek or Latin. Candidates shall attend courses and present themselves for examination in *two* of these subsidiary subjects taken as one-year subjects, and in the *third* taken as a two-years subject, as approved for the Ordinary degree of Bachelor of Arts. The study of each subsidiary subject shall commence in the first academic year.

Candidates who have obtained a Higher School Certificate in any of these subsidiary subjects may, subject to the approval of the Board of the Faculty of Arts, substitute for the course and examination for the first year in that subject, those of the second year of the course for the Ordinary degree of Bachelor of Arts; and for the course and examination for the second year, those of the third year of the course for the Ordinary degree.

The Class obtained by any candidate shall not be published until he has satisfied the examiners in these subsidiary subjects, but in the event of his failure to do so in any of these subsidiary subjects, he may present that subject alone at a subsequent examination.

DEGREE OF MASTER OF ARTS

I

Ordinance. 1. The degree of Master of Arts may be conferred, on payment of the proper fee, upon registered Bachelors of Arts when of not less than one year's standing from the date of their graduation as Bachelors, subject to the conditions contained in the following paragraphs.

2. Bachelors of Arts who have graduated 'with Honours may proceed to the degree of Master of Arts on presenting a dissertation satisfactory to the Senate on a subject approved by the Board of the Faculty of Arts, or in special cases by examination on a course of study approved by the Board of the Faculty of Arts.

3. Bachelors of Arts who have obtained the Ordinary degree shall be required to pass an examination in a subject upon which instruction is given in the Faculty of Arts, and to present a dissertation satisfactory to the Senate on a subject the title of which has already been approved by the Board of the Faculty of Arts, or, if they do not present a dissertation, to pass a more extended examination. In special cases it shall be in the power of the Senate, on the application of the candidate and on the special recommendation of the Board of the Faculty of Arts, to award the degree upon a dissertation only. Candidates wishing to apply for such remission must

make application to the Board of the Faculty of Arts not later than the end of the October preceding the examination. Regulations shall determine the subjects in which the examination will be held. Certificates of attendance on courses of study in the University shall not be required. Bachelors of Arts who have obtained First or Second Class Honours in any School after the Ordinary degree shall be entitled to receive the M.A. degree without further test.

4. Graduates of the University other than Bachelors of Arts may become candidates for the degree of M.A. under the conditions laid down in Article 3 for Bachelors of Arts who have obtained the Ordinary degree, provided that they attend for not less than two years such courses of lectures as the Board of the Faculty of Arts may require.

5. Any person who has qualified for the degree of M.A. in one subject and proceeded to the degree and has subsequently fulfilled to the satisfaction of the Senate the regulations for the degree of M.A. in another subject, shall be entitled to have a statement to that effect endorsed on his certificate of graduation as Master of Arts.'

6. All candidates who offer a dissertation either as sole test or in combination with other tests, may be called upon to present themselves for an examination—written, or oral, or both—in the theme of their dissertation.

7. The names of candidates who have satisfied the examiners shall be arranged in alphabetical order, and distinction may be awarded for work of exceptional merit at the discretion of the examiners.

II

8. Graduates or persons who have passed the Final examination for a degree of other approved Universities shall, if they present evidence satisfactory to the Senate that they are qualified to pursue a course of advanced study or research, be permitted to enter the University and to become candidates for the degree of M.A., without taking the B.A. degree, after not less than two years of such advanced study or research.

9. Persons who are not graduates (nor have passed the Final examination for a degree) of an approved University, may, if they satisfy the Senate that their educational attainments are adequate and that they are qualified to pursue a course of advanced study or research, be permitted to enter the University and to become candidates for the degree of M.A., without taking the B.A. degree, after not less than three years of such advanced study or research.

10. Candidates admitted under the provisions of either of the two paragraphs preceding shall be required to fulfil the following conditions:—

- (a) To be registered as students of the University.
- (b) To pursue a course of advanced study or research under the supervision of the Head of the Department concerned.
- (c) To attend such courses of lectures at the University as the Senate, on the recommendation of the Board of the Faculty of Arts, may require.

They shall be further required to give evidence to the Senate at the end of the first year of their period of study that their work has been satisfactory, and at the end of their course they shall be required to present a dissertation, and to satisfy such further test, if any, as the Senate shall deem expedient. They will, as a rule, be called upon to present themselves for an examination—written, or oral, or both—in the theme of their dissertation.

N.B.—In 1932 the latest date of entry and payment of fee for candidates presenting themselves for examination in June will be TUESDAY, MARCH 1st. Candidates proceeding to the degree of M.A. by dissertation only must make their entry, pay the prescribed fee, and send in their dissertations not later than MONDAY, MAY 2nd. It is desirable that all candidates who present a dissertation should furnish at least two copies of such dissertation.

Examination

Regulations Bachelors of Arts who have obtained the Ordinary degree and are candidates for the degree of Master of Arts may present themselves for examination in any *one* of the following subjects, viz., Greek, Latin, French, German, Spanish, Russian, English, History, Philosophy, Economics, Geography, Mathematics, Education, Music.

Greek

Translation from Greek books selected, as a rule, from those prescribed for Honours in Classics (1 paper).

Translation at sight and questions on the subject matter of the specified books (1 paper).

Translation at sight and Greek prose composition (1 paper).

Either a dissertation on some subject approved by the Board of the Faculty of Arts, or a more extended examination.

Books prescribed for 1931-32

- Homer, *Odyssey* i-vi; Theocritus i, ii, vii, xv; Aeschylus, *Agamemnon*; Aristophanes, *Frogs*; Thucydides iii; Aristotle, *Poetics*.

Latin

Translation from Latin books selected, as a rule, from those prescribed for Honours in Classics (1 paper).

Translation at sight and questions on the subject matter of the specified books (1 paper).

Translation at sight and Latin prose composition (1 paper).

Either a dissertation on some subject approved by the Board of the Faculty of Arts, or a more extended examination.

Books prescribed for 1931-32

Plautus *Mostellaria*; Lucretius i; Catullus (Simpson, Macmillan, with omissions); Horace *Odes* i, ii, iii, *Satires* ii; Virgil *Aeneid* ii, iv, vi; Cicero *Tusculan Disputations* i, ii; Livy i, Tacitus *Histories* iii.

French

Composition and essay (1 paper).

Prescribed texts in Old and Modern French, including literary and linguistic study (1 paper).

Unprepared translation and historical grammar (1 paper).

French Literature (general outlines and special period or periods) (1 paper).

Oral examination.

A dissertation on some subject approved by the Board of the Faculty of Arts.

Books prescribed for 1931-32

G. Paris et Langlois, *Chrestomathie du Moyen Age*; Darmesteter et Hatzfeld, *Morceaux Choisis des Ecrivains du 16^e Siècle* (verse only); Molière, *Le Misanthrope*, *Les Femmes Savantes*; Racine, *Britannicus*; Rousseau, *Extraits*; Victor Hugo, *Notre Dame*.

Period of Literature prescribed for 1931-32

La tragédie française de 1550 à 1700.

German

Composition and essay (1 paper).

Prescribed texts in Middle High German and New High German, including literary and linguistic study (1 paper).

Unprepared translation and historical grammar (1 paper).

German Literature (general outlines and special period or periods (1 paper)

Oral examination.

A dissertation on some subject approved by the Board of the Faculty of Arts.

Books prescribed for 1931-32

Bartsch, *Liederdichter* xxi; Wright, *Middle High German Primer*; iii, vii; Grullparzer, *Sappho*, Schiller, *Wilhelm Tell*, ed. Breul (Pitt Press); Goethe, *Götz* (Ginn & Co.) and *Egmont* (Clarendon Press); Heine, *Buch der Lieder* (Manchester University Press); Poems by Goethe, Schiller, and Uhland, in Fiedler, *Book of German Verse* (Clarendon Press).

Period of Literature for 1931-32

1700-1832.

English Language and Literature

Either—

A (a) A dissertation.

(b) Examination, written or oral or both, in subjects connected with the candidate's dissertation

(c) English literature from 1491 to 1660, or History of the English Language (1 paper).

Or—

B (a) An extended essay, to be written during the session, on a subject to be arranged with the professor.

(b) English literature from 1491 to 1660, or Old and Middle English Philology (1 paper).

(c) Literary criticism with selected texts, or selected Old and Middle English Texts, with literary and historical questions suggested by them (1 paper)

(d) Two of the following:—

(i) Chaucer and the fifteenth century.

(ii) Shakespeare and the Elizabethan drama.

(iii) Outlines of the History of the English Language.

(iv) Old Icelandic.

(v) A special subject, to be arranged with the professor.

Texts and Periods for 1931-32.

For details of these courses, see the special regulations for English Honours courses.

Spanish

Composition and essay (1 paper).

Prescribed texts in Old and Modern Spanish, including literary and linguistic study (1 paper).

Unprepared translation and historical grammar (1 paper).

Spanish literature (general outlines and special period or periods) (1 paper).

Oral examination

A dissertation on some subject approved by the Board of the Faculty of Arts

Russian

Composition and essay (1 paper).

Prescribed texts in Old Bulgarian and in Old Russian including literary and linguistic study (1 paper).

Unprepared translation and historical grammar (1 paper).

Russian literature (general outlines and special period or periods) (1 paper).

Oral examination.

A dissertation on some subject approved by the Board of the Faculty of Arts.

History

An Essay (1 paper).

Either Ancient History (to 337 A.D.) General (2 papers) with special period in Ancient History (2 papers).

Or Medieval History (300 to 1500 A.D.), General (2 papers), with special period in Medieval History (2 papers).

Or Modern History (since 1500 A.D.), General (2 papers), with special period in Modern History (2 papers).

Candidates may substitute a dissertation for the Essay and the 2 papers on the special period.

Special Periods prescribed for 1931-32

(1) Roman History (44 B.C.-14 A.D.); (2) The Reign of Richard II; (3) The Reign of James I; (4) English History (1688-1714).

Philosophy

(a) General Questions (1 paper)

(b) Three of the following:

Logic (1 paper).

Psychology (1 paper).

Ethics (1 paper).

History of Philosophy, Ancient or Modern (1 paper).

Advanced Psychology or Moral and Political Philosophy (1 paper).

(c) One of the following special subjects:

Greek Philosophy before Socrates

Socrates and Plato.

Aristotle.

Post-Aristotelian Philosophy.

Descartes, Malebranche, Spinoza

Spinoza and Leibniz.

English Philosophy, from Locke to Hume, with reference to Bacon and Hobbes, and to Reid and the Scottish Philosophy.

Kant.

Candidates may as an alternative present a dissertation on a subject approved by the Board of the Faculty of Arts and present themselves for examination in three papers from section (b) or in two papers from section (b) and one paper from section (c).

Economics

- (a) An Essay (1 paper).
- (b) English Economic History, including the special study of a set period (2 papers).
- (c) One of the following :
 - General Principles of Economics (2 papers).
 - A special Economic subject (2 papers).
 - History of Economic Theory, including the special study of the work of a particular economist (2 papers).

Candidates who have taken Economics as a subject for the degree of B.A. may not offer General Principles of Economics.

Candidates may as an alternative present a dissertation on a subject approved by the Board of the Faculty of Arts, and present themselves for examination in (b) or in one subject of (c). Such candidates may not offer a special Economic subject and a dissertation on the same subject.

Geography

- (a) (1) General Questions (1 paper,, together with *two* of the following :
 - (2) Regional Geography (1 paper).
 - (3) Human Geography (1 paper).
 - (4) Economic Geography (1 paper).
- (b) A dissertation on some subject approved by the Board of the Faculty.

Education

- (A) A dissertation on some subject related to Education and approved by the Board of the Faculty of Arts

And (B) Either The Theory of Education (2 papers), one of the following topics :

- (1) The ultimate aim of education, and its relation to subordinate aims, with special consideration of the concepts of liberal culture, formal discipline, and vocational training.
- (2) Heredity and environment in education.
- (3) The general process of psychological development in relation to education, with a detailed investigation of the psychological processes involved in some one form of educative influence.
- (4) The literature and practice of experimental psychology as applied to education, with records (if any) of personal investigation.
- (5) The theoretical bases of the process of learning, with special study of methodology applied to some part of the curriculum approved by the Board of the Faculty of Arts.
- (6) The principles and methods of religious and moral education.
- (7) The aim and organisation of systems of education as determined by social, economic, political, moral and religious conditions and ideals, with a study of the functions and relations of educational agencies.
- (8) Physical development, including the study of fatigue.

- (9) Psychology and physiology of skill with its educational implications.
- (10) Any specific educational problem approved by the Board of the Faculty of Arts.

Or The History of Education—(2 papers) on one of the following periods, with study of certain original authorities, as arranged after consultation with the Professor, viz :

- (1) From beginnings of Greek education to 400 A.D.
- (2) 400 A.D.—1000 A.D.
- (3) 1000 A.D.—1400 A.D.
- (4) 1400 A.D.—1760 A.D.
- (5) 1760 A.D. to present time.

Or a detailed study, based on personal knowledge, of the educational system of any one country, selected by the candidate with the approval of the Board of the Faculty of Arts. The examination on this subject may consist of an inspection of the reports and note books presented by the candidate.

Mathematics

Either—

- A. (a)' A dissertation.
- (b) Examination in subjects connected with the candidate's dissertation.
- (c) Examination in mathematical subjects of a more general character.

Or—

- B. Examination in the following subjects (4 papers) :—
- (a)' Higher Algebra and Trigonometry (Plane and Spherical).
- (b) Analytical Geometry (Plane and Solid).
- (c) Calculus and Differential Equations.
- (d) Statics.
- (e) Hydrostatics.
- (f) Dynamics of a Particle.
- (g) Rigid Dynamics.
- (h) Mathematical Analysis.
- (i) Elements of the Theory of Functions.
- (j) Potential Theory.
- (k) Hydrodynamics.

DEGREE OF MASTER OF EDUCATION (M.Ed.)

1. The degree of Master of Education (M.Ed.) may be ^{Ordinance.} conferred, upon payment of the proper fee, on graduates of the University of not less than two years' standing from the date of their graduation as Bachelors, who have obtained the Diploma in Education of the University, subject to the conditions contained in the following paragraphs.

2. Each candidate for the degree of M.Ed. shall be required to present a thesis, consisting of a record of original work or research, or independent study or criticism, on some educational subject approved by the Senate. Each candidate shall further be required to submit himself for examination (oral or written, or both) in the subject of his thesis, unless the Senate on application waives this requirement.

3. (a) Candidates who have obtained the Diploma in Education of the University shall be entitled to present the thesis not less than one academic year after obtaining the Diploma with or without further attendance at the University.

(b) Graduates of the University who have satisfied the examiners in the subjects of Education at the Final examination for the degree of Bachelor of Arts or Bachelor of Science, may become candidates for the degree of M.Ed., notwithstanding that they have not obtained the Diploma in Education, provided that they have had, after graduation, either (1) not less than one year's approved study, or (2) not less than one year's experience in the practical work of education and have proved efficient therein, and, subsequently shall have pursued for an additional year an approved course of advanced study or research in Education.

(c) Graduates of the University, may, by permission of the Senate, substitute for the Diploma in Education of the University, the Diploma or Certificate in Education of another approved University. Such candidates shall be required to pursue a course of advanced study or research in Education in the University for one year.

4. Graduates, or persons who have passed the Final examination for a degree of other approved Universities shall, if they produce evidence satisfactory to the Senate that they are qualified to pursue a course of advanced study or research be permitted to enter the University and to become candidates for the degree of M.Ed. without having previously graduated in this University. Such candidates shall be subject to the requirements set forth in paragraph 2 above, and shall further be required

to pursue a course of study and research in Education in the University for a period of two years, except in so far as the Senate approves of study and research conducted in some other institution during one of the required years.

N.B.--In 1932 candidates must make their entry, pay the prescribed fee, and send in their thesis not later than TUESDAY, MAY 3rd. The thesis should be type-written and at least two copies should be furnished.

DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.)

1. The Degree of Doctor of Philosophy (Ph.D.) is conferred, on payment of the proper fee, on persons who are registered graduates of the University of Leeds, or who have obtained at an approved University or Institution of University rank a degree or appropriate diploma awarded upon an approved course of study extending over not less than three years, or have passed the Final examination for such a degree at an approved University, provided that in all cases the conditions laid down in the following paragraphs have been satisfied. Ordinance

2. All Candidates for the Degree of Doctor of Philosophy are required to pursue in the University for at least two academic years an approved full-time course of advanced study and research, under the direction of the Head of the Department concerned or of a member of the University staff appointed by the Senate on his recommendation :

provided that, after completion of the first year of the course, candidates may be permitted to devote such periods as may be deemed advisable by the Senate to full-time study and research in other approved Universities or institutions, while remaining under the direction of the University or of persons nominated by the University.

3. Before entering on the course of advanced study and research, candidates are required Regulation

- (a) To have attained the age of 21 years.
- (b) To submit to the Senate for its approval the course of advanced study and research proposed by them and to present evidence satisfactory to the Senate that they are qualified to undertake the proposed course.
- (c) To register as students of the University and to pay the prescribed fees for tuition.

4. On completing the course of advanced study and research candidates are required

- (a) To present a thesis on the subject of their advanced study and research, and to satisfy the examiners that it contains original work worthy of publication, and that it is of a sufficient standard of merit to qualify for the degree of Doctor of Philosophy.
- (b) To submit themselves for an oral examination on matters relevant to their thesis and, if required, for a written examination and to satisfy the examiners in the examination as well as in the thesis presented.

5. The application of a candidate for admission to the course for the degree must give particulars of his educational career and qualifications as well as the subject of his proposed course of advanced study and research. The application should be addressed to the Clerk to the Senate.

NOTE.—A candidate is advised, before making application to the Clerk to the Senate, to consult the Head of the Department which is concerned with the subject which he proposes to study.

6. A candidate is required during his course to devote his whole time to his advanced study and research ; but in exceptional cases the Senate is prepared to allow the candidate to undertake a limited amount of outside work which, in its judgment, would not interfere with the prosecution of his proposed course of advanced study and research.

7. A candidate will not be permitted to submit as his thesis one for which a degree has been conferred upon him in this or any other University ; but he shall not be precluded from incorporating in his thesis any part of the work already submitted by him with a view to a degree for which he has been a successful candidate, provided that in his application to the University for admission to the course he states his desire to do so, and in the thesis itself indicates the part of the work which has been so incorporated.

8. It will be generally convenient that the candidate's course should begin either at the opening of the academic year in October, or during the previous Long Vacation ; but the Senate is prepared to consider applications for leave to begin the course at some other time in the academic

year. The course must in any case extend over two academic years or their equivalent.

9. Towards the completion of his course the candidate, giving if possible three months' notice to the Clerk to the Senate, must make application to be examined and must submit, as soon as possible afterwards, at least one copy of his thesis, which should be accompanied by a short abstract. A copy of the thesis will be retained in the University Library.

DEGREE OF DOCTOR OF LETTERS

1. The degree of Doctor of Letters shall be conferred by the University upon registered Masters of Arts or Doctors of Philosophy of the University who shall be deemed by the Senate, after considering a report from the Board of the Faculty of Arts, to have distinguished themselves by special research or learning. Ordinance

Provided that the Senate may, in such cases as it shall think fit, after considering a report from the Board of the Faculty of Arts, also require candidates to pass such an examination as it may from time to time determine.

2. A Master of Arts or a Doctor of Philosophy of the University may make application for the degree of Doctor of Letters in the sixth or any subsequent year from the date of admission to the Bachelor's degree, or from the date of his acceptance as a candidate for the M.A. or Ph.D. degrees.

3. Such applications shall be made in writing to the Clerk to the Senate, and shall contain a full statement of the grounds on which the claim for the degree is based, together with one or more copies of any thesis, whether in print or in manuscript, which the applicant may desire to submit in support of the application. A copy of the thesis submitted will be retained in the University Library.

4. If the application be approved by the Senate, the degree may be conferred at the expiration of not less than six years from the date of admission to the Bachelor's degree, or from the date of his acceptance as a candidate for the M.A. or Ph.D. degrees.

N.B.—In 1932 the latest date for application and payment of fee will be TUESDAY, MARCH 1st

DIPLOMAS IN ARTS

Ordinance Diplomas shall be granted by the University, in such subjects as the Council may from time to time determine, to students who pursue the courses of study and pass the examinations prescribed.

The Council is empowered to make from time to time Regulations under which such Diplomas shall be awarded.

The award of Diplomas under the provisions of this Ordinance is delegated to the Senate.

Regulations Candidates for Diplomas are required to give satisfactory attendance upon all the subjects which form part of their course of study, and to present themselves for any class examinations that may be held in the same. Those who do not pass satisfactorily in these examinations in any year will be disqualified for the Diploma unless they repeat the course in whole or in part, as may be required by the Senate.

At the close of the course, candidates will be required to present themselves for such examination in the main subject of study as may be prescribed.

Some deviation from these courses may be sanctioned in special cases, and students who on entering upon a Diploma course produce evidence that they possess a sufficient knowledge of the work done during a part of the course will be allowed to dispense with a certain amount of attendance. Applications for exemption from attendance should be made to the head of the department concerned, who shall bring them before the Standing Committee of the Senate appointed to deal with such matters.

Diploma in Education

Regulations Candidates for the diploma in Education must be graduates of some University in the United Kingdom or must have obtained such other academic qualifications as shall be approved by the Senate of the University.

The session for students in this department will open about the beginning of September and will close about the middle of July.

The course is both theoretical and practical. At least sixty days normally will be devoted to class work in school. Candidates who have had at least one year's experience of

class teaching may be permitted to substitute for this period of practical training an approved course of visits to educational institutions.

Students will attend the following lectures :

- (a) The principles and methods of education and teaching.
- (b) The psychological bases of education.
- (c) Physical, intellectual, and moral development of the child.
- (d) The history of education (with selected work or works).
- (e) Educational systems.
- (f) Experimental education (with laboratory practice).
- (g) Modern problems in education.
- (h) Phonetics
- (i) Physical Development, Hygiene and Physical Training.

In addition there are optional courses in Scientific Method and Advanced Psychology

Practical Work

This will be carried on under the immediate supervision of members of the staff, and of certain teachers of special subjects in the practising schools

Students who wish to specialise in one or more subjects of the school curriculum will be definitely attached throughout the year to certain selected schools which provide special opportunities for the required training.

For some time previous to the opening of the ordinary University session at the beginning of October, students may be in continuous attendance at selected schools for the purpose of observing methods of organisation, teaching, discipline, &c.

Throughout the University session systematic observation and teaching in school will be done by each student.

The written examination for the diploma will take place in June, at the same time as the degree examinations.

The tests in practical skill will consist in the delivery of lessons and in an inspection of records of the candidates' practical work in school. Importance will be attached

to reports on the candidates' work and skill from the teacher of the school under whom they have worked, and from the staff of the University Education department.

Graduates in Arts or Science of this University who have included Education in the final examination for their degree may obtain the diploma in Education after a further year's attendance on a course approved by the Board of the Faculty in which the degree was taken. Such course must include :

- (a) Attendance in schools as specified above ;
- (b) Attendance on course (g) above ;
- (c) Attendance on a course of study in Arts or Science (not included in those taken for a degree), approved by the Board of the Faculty as at least equivalent to the subject of Education taken as part of the final course for the degree.

The examination for the diploma in Education will in these cases consist of the tests of practical skill, and the paper in the Practice of Education, but the diploma will not be issued until the candidate has also passed the degree examination in the subject or subjects included under (c).

The list of successful candidates will be issued in alphabetical order.

No diploma will be issued until the candidate has passed in both the written and the practical parts of the examination ; but a candidate who fails in the practical part only may, on the recommendation of the examiners, be allowed by the Senate to present that part at a subsequent date without further written examination. In such cases the candidate must produce a satisfactory report from the head teacher of the school in which he has been teaching, and must submit records of work done.

Diploma in Educational Administration

The courses of study for the Diploma in Educational Administration are intended to meet the needs of those who are engaged in administrative work under Local Education Authorities, or of those who wish to gain a knowledge of such administrative work,

Admission

The lecture courses are open to all who have passed the Matriculation Examination of a University or its equivalent, or to those who can give evidence that their experience and education have been such as to enable them to profit by attendance at them.

Early application for admission is desirable and should be made to the Registrar in any case not later than Thursday, October 29th. The University reserves the right to suspend the course if the entry of students is regarded as insufficient.

Duration of Courses

The full course of study for the Diploma comprises about 60 lectures on the subjects given below and extends over the two Winter Sessions, 1931-32 and 1932-33.

Examinations

Candidates who wish to obtain the Diploma must have attended the full course and have passed the appropriate examinations.

Lecture Courses

1. The Development of Educational Administration in England and Wales.

2. Organisation of Administrative Departments of Local Education Authorities.

3. The School System—Types of Schools and Co-ordination.

4. Supervision of Schools.

5. Finance of Public Education.

6. Statistics of Education.

7. School Buildings.

8. Selection and Supply of School Apparatus and Material.

9. School Medical Service.

10. Social and Welfare Activities.

11. The Training of Teachers.

12. The legal aspect of Education.

13. Organisation of Education in other countries.

Lecturers

The Lectures will be given by members of the Staff of the Education Department of the University, Directors of Education, and others with expert knowledge and experience.

Dates and Fees.

The Lectures will be given on Wednesdays and Fridays at 6.15 p.m., those for Session 1931-32 beginning on November 11th, 1931.

The fee for the full Diploma Course of two Sessions is £5 5s.; or for one Session £3 3s.; or for a group of 8 lectures £1 1s.

Diploma in Geography

Candidates for the Diploma in Geography must be graduates of a recognised University, or must furnish evidence satisfactory to the Senate of educational qualifications sufficient to enable them to profit by the course.

Candidates will ordinarily attend as full-time students in the Department for one session, but in special cases attendance equivalent in time to the foregoing but spread over a longer period may be permitted.

The content of the Diploma course, and the nature and standard of the examination, will be the same as obtain for a student presenting Geography as a Principal subject for the Ordinary Degree of B.A.

The fees payable will be as follows:—

1. In the case of candidates who are graduates of the University of Leeds, and who have previously paid to this University three composition fees of not less than £33 each—

No Registration Fee.

(a) If the course is completed in one year .. £28

(b) If the course is spread over two years .. £16 10s.
a year.

2. Other candidates:

Registration Fee £2

(a) If the course is completed in one year .. £34

(b) If the course is spread over two years .. £19 10s.
a year.

COURSES IN ARTS

CLASSICS

GREEK LANGUAGE AND LITERATURE

Greek I

The work in this course will comprise composition, translation at sight and the special study of Euripides, *Medea*; Plato, *Apology*.

Four hours to be arranged later.

Books recommended

- North and Hillard's *Greek Prose Composition* (Rivington)
- Euripides, *Medea* (ed. Headlam, Cambridge Press)
- Plato, *Apology* (ed. Stock, Cambridge Press)

Greek II

The work in this course will comprise composition, translation at sight, and the special study of Homer, *Odyssey* V, VI; Demosthenes, *De Pace*, *De Chersonneso*, *Philippics* II, III.

Four hours to be arranged later.

Books recommended

- Sidgwick's *Greek Prose Composition* (Rivington).
- Homer, *Odyssey* I-XII (ed. Merry, Clarendon Press).
- Demosthenes, *De Pace*, &c. (ed. Sandys, Macmillan)

Greek III

The work in this course will comprise composition, translation at sight, and the special study of Homer, *Iliad* I, VI, Plato, *Protagoras*.

Four hours to be arranged later.

Books recommended

- Sidgwick's *Greek Prose Composition* (Rivington).
- Homer, *Iliad* I-XII (ed. Monro, Clarendon Press).
- Plato, *Protagoras* (ed. Adam, Cambridge Press)

Honours and M.A. Course

The work in this course will comprise composition, translation at sight, and the study of books prescribed for the examinations for Honours in Classics, and for the M.A. degree in Greek.

Six hours to be arranged later.

SPECIAL CLASSES

Elementary Class

This class is intended for beginners; it will not be held unless there is a reasonable number of promising applicants.

Two hours to be arranged later.

LATIN LANGUAGE AND LITERATURE

Latin I

The work in this course will comprise composition, translation at sight and the special study of Livy IX, ch. 1-31, and Horace *Odes* III.

Mondays, Wednesdays and Fridays at 10 a.m., with a composition class on *either* Tuesdays at 11 a.m., or Thursdays at 10 a.m.

Books recommended

Livy, *Book IX*. (Anderson, Pitt Press).

Horace, *Odes* III. (Gow, Pitt Press).

Arnold's *Latin Prose Composition*. (Bradley, Longmans).

(For private study) Caesar, *Gallie War* V. (Rice Holmes, Oxford).

Latin II

The work in this course will comprise composition, translation at sight and the special study of Horace, *Satires* (selected) and Cicero, *Letters to Atticus*, Book I.

Mondays, Tuesdays, Wednesdays, Fridays at 12 noon.

Books recommended

Cicero's *Letters to Atticus*, Book I, Pretor (Pitt Press).

Horace, *Satires*, Books I, II, Gow (Pitt Press).

Easy Passages for Translation into Latin, Sargent (Oxford).

(For private study), Cicero, *pro Archia*, Reid (Pitt Press).

Latin III

The work in this course will comprise more advanced composition, translation at sight and the special study of Livy I and Catullus (with omissions).

Mondays and Fridays at 3 p.m., and Wednesdays at 12 noon, and a composition class on Tuesdays at 12 noon.

Books recommended

Livy I, Edwards (Pitt Press).

Catullus, Simpson (Macmillan).

Easy Passages for Translation into Latin, Sargent (Oxford).

(For private study), Horace, *Odes* II.

H. Honours and M.A. Course

The work in this course will comprise composition translation at sight and the study of books prescribed for the examinations for Honours in Classics and for the M.A. in Latin.

Mondays at 12 noon, Tuesdays at 9 a.m., Thursdays at 9 a.m. and 10 a.m., and Fridays at 12 noon, with other hours to be arranged.

HEBREW LANGUAGE AND LITERATURE

(The lectures in Hebrew are given at Rawdon College).

Hebrew I

The work of the course comprises (1) the Grammar of the language; (2) translation and exegesis of prescribed chapters of the Old Testament: (3) *either* (a) easy composition (with pointing) based on the prescribed chapters; *or* (b) the History of Israel from the Conquest to Ezra.

Tuesdays and Thursdays, 8.45 a.m. Additional as may be arranged.

For Session 1931-32 the prescribed Chapters are Ruth 1-4.

Books required: Davidson's "Hebrew Grammar": Revised by MacFadyen. (Twenty-second Edition). T. & T. Clark.

G. A. Cooke, "Ruth." Cambridge Bible Series.

Hebrew II

The work of this course includes Grammar revision, composition, translation at sight, and pointing; translation and exegesis of prescribed books or portions of books, with critical introduction to the whole books prescribed.

Tuesdays and Thursdays, 9.45 a.m. Additional, as arranged.

For Session 1931-32 the prescribed portion is 1 Samuel, 1-16.

Books required: Davidson's "Hebrew Grammar" as above. Brown, Driver and Briggs' "Hebrew and English Lexicon of the Old Testament." (Clarendon

Press). Davidson's "Hebrew Syntax" (T. & T. Clark). Unpointed Text: "Former Prophets" (Brit. & For. Bible Society). Kirkpatrick, 1 and 2 Samuel. (Revised edition, 1930). Cambridge Bible Series. Driver "Notes on the Hebrew Text of the Books of Samuel." 2nd edition (Clarendon Press).

Hebrew III

The work of this course comprises (1) translation and critical study and exegesis of prescribed books or portions of books, with introduction to whole books prescribed; and *either* (2) syntax, composition, translation at sight, retranslation of short portions of prescribed passages and pointing; *or* (3) Old Testament History and the Development of Moral and Religious Ideas in Israel.

Three hours weekly as may be arranged.

The prescribed portion for Session 1931-32 is Psalms 73-89.

Books required: In addition to those mentioned above, Collins and Cowley's "Gesenius-Kautzsch Hebrew Grammar," Driver's "Hebrew Tenses," Briggs' "Psalms," 2 vols (International Critical Comm.). Kirkpatrick "The Book of Psalms" 1 vol (Cambridge Bible Series. Addis (Peakes' Commentary).

ENGLISH LANGUAGE AND LITERATURE

English IA (Literature)

The work in this course is intended to serve as an introduction to English literature for both Pass and Honours (qualifying) students. It will comprise a study of English literature from 1579 to 1642 with special reference to the following texts:—

Spenser, *The Faerie Queene*, Book VI; *Donne, *Songs and Sonets* (ed. Grierson, Oxford Poets); Palgrave and Binyon, *The Golden Treasury*, Book I and the early poems of Milton in Book II (Macmillan edition); *Milton, *Comus* (ed. Elton or Verity); Marlowe, *Edward II*; *Shakespeare, 2 *Henry IV*, *Much Ado About Nothing*, *Anthony and Cleopatra*; *Jonson, *Volpone*; Webster, *The White Devil*; Hakluyt, *Voyages of the Elizabethan*

Seamen (abridged edition, ed. Beazley); Bacon, **Selections from the Essays* (ed. Aldis Wright), *New Atlantis*; Florio's Montaigne, *Selections* (Cambridge Plain Texts); *The Book of Job* (Authorized Version); Daniel, *Defence of Ryme*; Dekker, *The Gull's Hornbook* (Temple Classics).

*Texts marked with an asterisk are prescribed for detailed study.

Mondays and Fridays at 11 a.m.

English 1B (Composition and Prosody)

The work will comprise (i) the study and practice of English Composition; (ii) an elementary course in English prosody. The course is intended for both Pass and Honours (qualifying) students.

Wednesdays at 11 a.m.

Books recommended

Fowler, *The King's English*.

Vernon Lee, *The Handling of Words*

Herbert Read, *English Prose Style*.

Saintsbury, *Historical Manual of English Prosody*.

NOTE.—A limited number of students from other departments may be admitted to this course on application.

English 1C (Essays and Discussions)

This course is intended for Honours (qualifying) students only in their first year. The work will take the form of discussions, following upon essays read by students to the class, on the literature of the period set for Course 1A.

In tutorial groups at times to be arranged.

English 1D (Language and Early Literature)

This course is intended for Honours (qualifying) students only in their first year. The work will comprise the outlines of the history of the English Language to the close of the fourteenth century, and a special study of West Saxon texts and of the language of Chaucer.

The following books are selected for study in 1931-32: Sweet, *Anglo-Saxon Primer*; Wright, *Elementary Old English Grammar*; Sweet, *Anglo-Saxon Reader* (Oxford, 9th edition), extracts i, ii, iv, ix, x, xxi, xxvi; Chaucer,

Nun's Priest's Tale (ed. Sisam, Oxford); Sisam, *Fourteenth Century Verse and Prose* (Oxford), extracts ii, viiia, xv; Wright, *Elementary Middle English Grammar* (Oxford); Jespersen, *Growth and Structure of the English Language* (Blackwell).

Mondays and Fridays at 3 p.m.: Thursdays at 12 (noon).

Books recommended

Wyld, *Short History of English*. (Murray).
 Sweet, *Short Historical English Grammar*. (Oxford).
 Bradley, *The Making of English*. (Macmillan)
 Ker, *English Literature, Medieval*. (Home Univ. Library).
 Pollard, *Chaucer Primer*.

English IIA (Literature)

The work in this course will comprise a study of English literature from 1660 to 1784 with special reference to the following texts:

Milton, *Paradise Lost* (Complete, *IV and *IX) and *Samson Agonistes*; Bunyan, *Grace Abounding*; *The English Parnassus* (ed. Dixon and Grierson), pp. 148-252 (**Absalom and Achitophel*, **Vanity of Human Wishes*); Dryden, *All for Love*, *Mac Flecknoe*, and **Preface to the Fables*; Congreve, *The Way of the World* (World's Classics); Pope, **Epistle to Arbuthnot*, **Epistle to Augustus*; Swift, *A Tale of a Tub*, *Gulliver's Travels* (*Parts I and II); *The Spectator*, vol. 1 (Everyman); Thomson, *Winter*; Johnson, *Lives of the Poets* (*Dryden, Addison, *Pope, Swift, Gray, and Collins), *Journey to the Western Islands*; Boswell, *Tour to the Hebrides* (ed. R. W. Chapman); Gibbon, *Autobiography*; Walpole, *Select Letters* (Bohn's Popular Library); Fielding, *Joseph Andrews*; Sterne, *A Sentimental Journey*; *Shakespeare Criticism*, ed. D. Nichol Smith, pp. 17-214 (World's Classics).

Mondays and Fridays at 11 a.m.

*Texts marked with an asterisk are prescribed for detailed study.

English IIB (Composition and Literary Forms)

The work will comprise (i) the continued study and practice of English composition, (ii) a study of the

typical forms of literature, *e.g.* the epic, the ballad, the lyric, etc.

At times to be arranged.

Book recommended

Ker, *Form and Style in Poetry*.

English IIc (Language and Early Literature)

The work in this course will comprise a study of Old and Middle English (Language and Literature). The following texts will be used:—

Sweet, *Anglo-Saxon Primer*, with a study of selections iv and v; Sweet, *Anglo-Saxon Reader*, selections i, ix, xxvi; Sisam, *Fourteenth Century Verse and Prose* (Oxford), selections ii, viii, xliib, xv; Chaucer, *Nun's Priest's Tale* (ed. Sisam); *Clerk's Tale* (ed. Sisam).

Wednesdays at 11 throughout the session.

English IIIA (Literature)

The work will comprise a study of English literature from 1660 to 1784. A first-hand knowledge of the period will be expected, and a special knowledge of the texts prescribed for Course IIA.

Mondays and Fridays at 11 a.m.

English IIIB (Language and Literature)

The work of this course will comprise a further study of Old and Middle English language and literature, with special attention to the works of Chaucer. A general knowledge of the history of the English language will also be required.

The following texts will be read:

Sweet, *Anglo-Saxon Reader*, selection xxi; Sisam, *Fourteenth Century Verse and Prose*, selections iii, v, xvi, xvii; Chaucer, *Parlement of Foules*, *Rosamund*, *Frankleyns Tale*, *Knights Tale*.

Fridays at 12 noon throughout the session.

Books recommended

French, *A Chaucer Handbook* (Crofts, New York).

Ker, *English Literature Medieval*.

Jespersen, *Growth and Structure of the English Language* (Blackwell).

Bradley, *The Making of English* (Macmillan).

FINAL HONOURS AND M.A. COURSES

*A. Literature.***Ha1. (Scheme A) Second Year**

Essays and discussions on the literature of the period set for Course IIIA.

In tutorial groups at times to be arranged.

Ha2. (Scheme A) Third Year

Essays and discussions on the literature of the period set for Course IIIA.

In tutorial groups at times to be arranged.

Ha3. (Scheme A and B) Third Year

Early English Literature.

Thursdays at 11 a.m.

Ha4. (Scheme A and B) Second and Third Years

Chaucer.

This course will be given in alternate years. It will next be given in 1932-3.

Wednesdays at 11 a.m.

Ha5. (Scheme A) Second and Third Years

The fifteenth and sixteenth centuries.

This course will be given in alternate years. It will next be given in 1932-3.

Tuesdays at 11 a.m.

Ha6. (Scheme A and B) Second and Third Years

Shakespeare.

This course will be given in alternate years. It will next be given in 1931-2.

Wednesdays at 11 a.m.

Ha7. (Scheme A) Second and Third Years

The Elizabethan Drama.

This course will be given in alternate years. It will next be given in 1932-3.

Tuesdays at 12 noon.

Ha8. (Scheme A) Third Year

History of Literary Criticism with selected texts.
Mondays at 3 p.m.

Ha9. (Scheme A) Second and Third Years

A special subject.

The work will take the form partly of lectures, partly of discussions upon papers read by students to the class.

Subject for 1931-2 : English poetry from 1860 with a special study of the Pre-Raphaelites, Meredith, Hardy, and Yeats.

Wednesdays at 10 a.m. and at times to be arranged.

B. Language.**Hb1. (Scheme A and B) Second Year**

The History of English.

Mondays and Wednesdays at 12 noon.

Hb2. (Scheme A and B) Second Year

Old and Middle English Texts.

Mondays and Wednesdays at 10 a.m.

Hb3. (Scheme A and B) Second and Third Years

Advanced Middle English Texts.

(i) Third Year. *Sir Gawain and the Green Knight*.
Wednesdays at 10 a.m.

(ii) Second Year. *The Owl and the Nightingale*.
Thursdays at 12 noon.

Hb4. (Scheme A and B) Third Year

Old English Heroic Poetry, with special study of *Beowulf*.

Mondays and Wednesdays at 12 noon.

Hb5. (Scheme A and B) Second and Third Years

Early Middle English Texts. Scheme B, second year
Scheme A (voluntary), third year.

Fridays at 2 p.m.

Hb6. (Scheme A and B) Third Year

Modern English Philology, studied with reference to plays of Shakespeare and other selected texts.

Tuesdays at 2 p.m. (Suspended for the session 1931-32).

Hb7. (Scheme B) Second and Third Years

Old and Middle English Philology, Second Year, Thursdays at 10 a.m.; Third Year, Mondays at 10 a.m.

Hb8. (Scheme B) Third Year

Introduction to Germanic Philology.
Thursdays at 10 a.m.

Hb9. (Scheme B) Second and Third Years

Elementary Old and Middle English Palaeography.
At times to be arranged.

Hb10. (Scheme B) Second and Third Years

Old Icelandic.

(i) Second Year, Fridays at 10 a.m.

(ii) Third Year (voluntary), Tuesdays at 11 a.m.

Hb11. (Scheme B) Second and Third Years

Modern Icelandic.

At times to be arranged.

Hb12. (Scheme B) Second and Third Years

Gothic.

(i) Second Year, Tuesdays at 10 a.m.

(ii) Third Year, Thursdays at 12 noon.

Hb13. (Scheme B) Second and Third Years

Vedic Philology.

At times to be arranged.

Hb14. (Scheme B) Second and Third Years

Medieval Welsh.

At times to be arranged.

H615. (Scheme B) Second and Third Years

Old Saxon and Old High German.

By arrangement with the German department.

H616. (Scheme B) Second and Third Years

Old French.

By arrangement with the French department.

• **H617. (Scheme B) Second and Third Years**

(i) Second Year, Russian.

(ii) Third Year, Old Bulgarian.

By arrangement with the Russian department.

H618. (Scheme B) Second Year

Latin Philology.

By arrangement with the Latin department.

H619. (Scheme B) Second Year

Greek Philology.

By arrangement with the Greek department.

H620. (Scheme B) Second and Third Years

Essays and discussions.

(i) Second Year, at a time to be arranged.

(ii) Third Year, Tuesdays at 10 a.m.

Hons. Modern Language Students who offer the History of the English Language should attend this class, if possible.

ICELANDIC LANGUAGE AND LITERATURE.**Icelandic IA**

This course is an introduction to Old Icelandic Language and Literature (from the beginnings to 1400). It comprises a study of the grammar of the language, including phonology, accidence and syntax, and detailed study of selected texts.

Fridays at 11 a.m.

Book recommended

Gordon. *An Introduction to Old Norse*. (Oxford).

Icelandic IB

This course is an introduction to modern Icelandic Language and Literature (from 1400 to the present day). It comprises (i) a study of the grammar of the language, (ii) prose composition in modern Icelandic, (iii.) practice in speaking present-day Icelandic, and (iv) detailed study of selected texts.

Mondays and Thursdays at 3 p.m.

Books recommended

Snæbjörn Jónsson, *A Primer of Modern Icelandic*. (Oxford).

Sigurður Nordal, *Íslensk Lestrarbók*. (Reykjavík).

Geir Zoega, *Íslensk-ensk Orðabók*. (Reykjavík).

Davíð Stefánsson, *Svartar Fjadrir*.

Icelandic IIA

The work of this course will comprise the study of Old Icelandic grammar and philology, and of prescribed saga texts.

Mondays at 11 a.m.

Books recommended

Bandamanna saga. (Reykjavík).

Gíslasaga Súrssonar. (Reykjavík).

Zoega, *Old Icelandic Dictionary*. (Oxford).

Ker, *Epic and Romance*. (Macmillan).

Finnur Jónsson, *Bókmentasaga Íslendinga*. (Reykjavík).

Icelandic IIB

The work of this course will comprise (i) the study of prescribed literary texts in modern Icelandic, (ii) Icelandic prose composition, (iii) conversations and discussions of work in Icelandic.

Two hours a week at times to be arranged.

Books recommended

Jón Thoroddsen, *Maður og Kona*.

Jóhann Sigurjónsson, *Fjalla-Eyvindur*.

Brynjúlfur Jónsson, *Natans saga Ketilssonar og Skáld-Rósu*.

Sigurður Nordal, *Íslensk Lestrarbók*.

FRENCH LANGUAGE AND LITERATURE

French IA, IB

The work done in these two courses is the same in every respect. It will comprise grammar, composition, dictation, and the special study of prescribed authors.

Course Ia and course Ib will be held on Mondays, Wednesdays and Fridays at 12 noon.

Books recommended

- Balzac, *Le Cousin Pons* (ed. Calmann-Lévy).
- V. Hugo, *Les Châtiments* (ed. Soltan, pub. by Blackie & Son).
- A. Daudet, *Fromont jeune et Risler Aîné* (ed. Calmann-Lévy.
- Nouvelle édition illustrée).

French Ic (Literature)

Lectures in French on 19th Century Literature will be given on Tuesdays at 3 p.m. during the first term.

Students taking French for the first year examination are expected to join this class.

Fee, £2.

French II A

The work in this course will comprise more advanced syntax and composition, the elements either of historical grammar or of phonetics, and the special study of prescribed authors.

Mondays, Tuesdays and Fridays, at 2 p.m.

Books recommended

- Corneille, *Le Cid*, *Polyeucte*.
- Racine, *Britannicus*, *Athalie*.

Additional books recommended for students preparing for the B.Com.

- Ch. Gide, *Principes d'Economie Politique*.

French IIB and IIIB (Literature)

Lectures on *La Tragédie Classique de 1550 à 1700* will be given in French on Tuesdays at 3 p.m. during the session.

No entry will be taken for less than two terms.

Fee, £4 for the session ; £3 for two terms.

French IIIA

The work in this course will comprise composition, the elements either of historical grammar or of phonetics and the special study of prescribed authors.

Mondays, Tuesdays and Fridays, at 2 p.m.

Books recommended

Corneille, *Le Cid*, *Polyeucte*.

Racine, *Britannicus*, *Athalie*.

H. Honours Course

Honours lectures on Monday, 3 p.m., 4 p.m.; Tuesday, 9 a.m., 10 a.m., 12 noon; Thursday, 2 p.m.; Friday, 2 p.m.; Saturday, 10 a.m.

Students taking Honours should consult the Head of the Department as to the lectures they must attend.

GERMAN LANGUAGE AND LITERATURE

German I

Mondays and Fridays at 3 p.m., and Thursdays at 11 a.m. or 2 p.m. (If necessary, the hours of this class on Thursdays will be altered).

This course is intended for candidates entering for the first year examination in Arts, Science, and Commerce, and for general students who wish to acquire a greater proficiency in German. In addition to the prescribed work, syntax, dictation, and composition will be studied, and the class will have practice in German conversation.

Books recommended

Short Stories by Modern German Authors, Dent.

Kuno Meyer, *German Grammar*, parts i and ii (Sonnenschein).

Schiller's Ballads, Heath & Co.

German II

Mondays, Wednesdays and Fridays, at 10 a.m.

The work of this class comprises revision of German syntax, the elements of historical grammar and phonetics, study of advanced texts, and composition. The class will be taught in German.

Books recommended

Goethe, *Egmont*, Clarendon Press.

Schiller, *Maria Stuart*, Pitt Press.

German II_B

Lectures on the Classical Period of Modern German Literature, one hour a week, will be given at time to be arranged.

Fee £4 for the session ; £3 for two terms ; £2 for one term.

German III_A

Mondays, Wednesdays and Fridays, at 10 a.m.

The work of this class will comprise revision of German syntax, the elements of historical grammar and phonetics, study of advanced texts, and composition. The class will be taught in German.

H. Honours and M.A. Course

Mondays, Wednesdays and Fridays at 11 a.m.

The work of this class will comprise Historical Grammar, Old and Middle High German Grammar and Literature, and interpretation of Old High German and Middle High German texts. Part of the work taken in this course is also suitable for graduates reading for the M.A. examination.

Books and periods will be found under the Honours School of Modern Languages and Literatures for the B.A. degree with Honours.

SPECIAL CLASSES**S1a. Lower Elementary Class for Science Students**

Mondays and Fridays at 2 p.m.

This class is intended for beginners. Special attention will be given to students of science and technology.

Books recommended

Fiedler-Sandbach, *First German Course for Science Students* (Clarendon Press).

S1b. Lower Elementary Class for Arts Students

Two hours per week.

This class is intended for beginners who desire later to take part in Intermediate and Final work.

Books recommended

Kuno Meyer, *German Grammar*, parts i and ii (Kegan Paul, Trench, Trübner & Co.).
First German Reader and Writer (Sonnenschein).

S2. Higher Elementary Class

Mondays and Fridays at 4 p.m.

This course is intended for students who already possess an elementary knowledge of German. In addition to the study of grammar and composition, the work of this class will include books of general literary interest, as well as texts bearing on various branches of science. German conversation will be practised.

Books recommended

Kuno Meyer, *German Grammar*, parts i and ii (Sonnenschein).
 Some science reader suitable for the majority of the members of the class.

S3. German History and Geography

Two hours a week at times to be arranged.

RUSSIAN LANGUAGE AND LITERATURE

The School of Russian Studies was founded in 1917. Its object is to study the language, literature, history, institutions, economics, and the achievements of Russian scholars in art and science.

The subject is recognised for a University degree both for the ordinary degree and for the degree with Honours. Russian can also be taken under the regulations for the Degree or Diploma in Commerce.

The donor, in endowing the "School of Russian Studies," wrote that he "was of opinion that it would be an illusion to expect that adequate advantage could be taken of Russia as an outlet for our manufactures unless we can be represented out there by our own countrymen equipped with the knowledge of the Russian language."

A certificate (without matriculation or degree) is conferred by the University on students who, after due preparation, can show in examination a thorough practical acquaintance with the Russian language. The course for this certificate extends over not less than two sessions.

Russian IA

Three hours a week at times to be arranged.

This course is intended for candidates entering for the first year examinations in Arts, Science and Commerce, and for general students who wish to acquire a greater proficiency in Russian. In addition to prescribed books, grammar, composition, dictation, and commercial correspondence, there will be practice in Russian conversation.

Books recommended

First year: *Russian Grammar*, by Nevill Forbes (The Clarendon Press).

Pushkin, *Kapitanskaya dochka*; *Selected Lyrics*.

Gogol, *The Revisor*.

Russian IIA

The work of this class will comprise revision of Russian syntax; the elements of historical grammar and phonetics, and the study of advanced texts and composition. The class will be taught in Russian.

Books recommended

Handbuch der Altbulgarischen Sprache, by A. Leskien.

Pushkin, *Zygane*.

Lermontov, *selected Lyrics*.

Turgenev, *Zapiski Ochetnika*.

Russian IIb

One hour a week at time to be arranged.

The history of Russian Literature.

Russian IIIA

Three hours a week at times to be arranged.

The work of this class will comprise composition, the elements of historical grammar and phonetics and

the special study of prescribed authors. The class will be taught in Russian.

Books recommended

Pushkin, *Boris Godunov*.

Lermontov, *Mzym*.

Turgenev, *Smok*

SPECIAL CLASSES

S1. Lower Elementary Class

Two hours a week at times to be arranged.

This class is intended for beginners. The work of the first year will consist of acquiring a vocabulary (about 800 words), the study of grammar, reading and writing. There will also be practice in Russian conversation.

S2. Higher Elementary Course

Two hours a week at times to be arranged.

This course is intended for students who already possess an elementary knowledge of Russian. The work will comprise grammar, composition, commercial correspondence, the reading of Russian books and conversation. Special attention will be given to students of Science, Technology, and Commerce.

S3. Russian Institutions

One hour a week at time to be arranged.

SPANISH LANGUAGE AND LITERATURE

Spanish I

Three hours a week at times to be arranged.

This course is intended for candidates entering for the Intermediate examinations in Arts, Science, and Commerce, and for general students who wish to acquire a greater proficiency in Spanish. In addition to prescribed books, grammar, composition, and dictation will be studied and there will be practice in Spanish Conversation.

Books recommended

Camba, *La rana viajera*.

E. Allison Peers, *A Skeleton Spanish Grammar*

Spanish II

Three hours a week at times to be arranged.

The work of this class comprises the study of prescribed texts (both prose and verse), a period or periods of Spanish literature, together with grammar, composition and conversation in Spanish.

Books recommended

- Knickerbocher and Camera, *Spanish Composition*.
Pérez de Ayala, *Tres novelas poemáticas*.
Azorín *Al margen de los clásicos*.

Spanish III

The work of this class comprises revision of Spanish syntax, the elements of historical grammar and phonetics, study of advanced texts, and composition. The class will be taught in Spanish.

Books recommended

- Lope. *El castigo sin venganza*.
Cervantes. *El licenciado Vidriera*.
Pío Baroja. *Paradox Rey*

Spanish Honours

The work of this class comprises Historical Grammar, interpretation of old, seventeenth century and modern texts, and three courses of Literature as follows: up to 1,500 in the first year, classical period in the second year, and the novel of the XIX century in the third year.

HISTORY

History IA

(Outlines of Greek and Roman History)

Tuesdays and Thursdays at 12 noon.

Greek History to the death of Alexander.

Roman History from 390 B.C. to 14 A.D.

Text Books recommended

For Greek History:

- Oman, *A History of Greece* (Longmans) or
Bury, *History of Greece for Beginners* (Macmillan).

For Roman History :

J. L. Myres, *A History of Rome* (Rivingtons), or
J. Wells, *A Short History of Rome to 14 A.D.*

The following Lives in Plutarch will be studied in connection with this course :—*Cimon, Lysander, Cato (the elder), Sulla.*

The text used will be the translation by Stewart and Long in Bohn's Library. The above Lives are all contained in Vol. II, which can be procured separately.

History I_B

(Modern History from 1763 to 1900)

Tuesdays at 12 (noon) and Wednesdays at 9 a.m. in the First Term and Tuesdays and Thursdays, at 12 (noon) in the Second and Third Terms.

History II_A

(English Constitutional History from 1485)

Tuesdays and Thursdays at 12 noon.

History II_B

(Medieval Life and Thought)

Tuesdays and Thursdays at 11 a.m.

This is also a course for candidates for the qualifying examination for candidates for the B.A. degree with Honours in English. Candidates taking History as a subsidiary subject are also recommended to take this course.

History II_C

(Ecclesiastical)

(The lectures in this subject are held at Rawdon College).

The regular course of instruction in Ecclesiastical History at Rawdon College deals with the period from 70 A.D. to 451 A.D.

This is divided into two sections, viz., (a) 70 A.D. to 313 A.D., and (b) 313 A.D. to 451 A.D., which are taken in alternate years. The period for 1931-32 is 70 A.D. to 313 A.D. Two lectures are given each week, at times arranged at the beginning of each session.

Courses on other periods of Ecclesiastical History are given from time to time by special arrangement.

History III_A

(Greek History from 478 to 323 B.C.)

Wednesdays at 11 a.m. and Fridays at 10 a.m.

History III_B

(Roman History from 133 to 30 B.C.)

Tuesdays and Thursdays at 10 a.m.

History III_C

(English History from 1783 to 1906)

Mondays and Fridays at 10 a.m.

History III_D

(The History of the British Empire)

Wednesdays and Fridays at 9 a.m.

HONOURS AND M.A. COURSES

H1. Roman History 44 B.C. to 14 A.D.

Mondays and Wednesdays at 10 a.m.

H2. The same

For students in their third year.

Fridays at 11 a.m.

H3. English Constitutional History from 1485

Tuesdays and Thursdays at 12 noon.

H4. The Reign of Richard II

Wednesdays and Fridays at 12 noon.

H5. The Reign of Richard II

A supplementary class for students in their third year.

Wednesdays and Fridays at 11 a.m.

H6. The Reign of James I

Wednesdays and Fridays at 12 noon.

H7. The Reign of James I

A supplementary class for students in their third year.
Wednesdays and Fridays at 11 a.m.

H8. English History 1688 to 1714

Wednesdays and Fridays at 12 noon.

H9. English History 1688 to 1714

A supplementary class for students in their third year.
Thursdays at 10 a.m.

H10. European History

Mondays and Wednesdays at 11 a.m.

H11. Materials for Historical Research for Honours
Students in their second year

Fridays at 10 a.m.

H12. Essay Class

One hour a week at times to be arranged.

H13. Political Theory

At times to be arranged.

H14 The History of the British Empire

Wednesdays and Fridays at 9 a.m.

H15. Special Class on other Set Books for Honours
Students in their first year

Tuesdays and Thursdays at 2 p.m.

The following is a provisional list of the books to be studied:—Homer's *Iliad*, Bks. i-vi (in Lord Derby's translation, *Everyman's Library*); Plato's *Republic* (Bks. ii and viii); Polybius on the *Roman Constitution*; Dante's *Divine Comedy*; Machiavelli's *Prince*; J. S. Mill, *On Liberty* (World's Classics); Mazzini, *The Duties of Man* (*Everyman's Library*).

PHILOSOPHY

Philosophy I

Logic

Two Lectures a week throughout the session at times to be arranged.

This course deals with the elements of logic, deductive and inductive. Students will find it useful to familiarise themselves with the elementary formal logic, in some such text-book as *Mellone* before entering the class.

Philosophy II_A

History of Ancient Philosophy

Two lectures and a tutorial class each week throughout the session, at hours to be arranged.

Subjects : The outlines of the history of Greek philosophy with more detailed study of selected works.

Candidates for Honours in Classics attend this class.

Philosophy II_B

History of Modern Philosophy

Two or three lectures each week throughout the session, at hours to be arranged.

Subjects : General outline of modern philosophy from Bacon to Kant, with the special study of selected works.

Philosophy II_C

Psychology

This course will consist of a general outline of the subject, with more detailed study of some part of the subject.

Philosophy II_D

Ethics

Two lectures and a tutorial class each week throughout the session, at hours to be arranged.

Subjects : The outlines of ethical theory, together with the elementary psychology of the will, and the study of selected ethical systems.

**Philosophy IIe
Political Theory**

A historical survey of the subject, with the special study of selected works.

H. Honours Courses

Lectures will be delivered on subjects for the Honours degree, as required, at hours to be arranged.

Lectures on Social Philosophy and Social Psychology will be delivered as required by candidates for the Diploma in Social Organization and students attending courses for Welfare Supervision. Particulars on application to the Professor.

GEOGRAPHY

Geography I

General Geography.

Lectures 2 hours per week throughout the session (Tuesdays and Fridays at 9 a.m.).

Tutorials and practical work of not less than 3 hours per week at times to be arranged.

Geography II

A.—Principles of Human Geography (two hours per week throughout the session).

B.—The Geography of the British Isles (one hour per week throughout the session).

C.—Tutorials and practical work of three hours per week at times to be arranged.

Geography III

Three of the following courses, normally including two under (A).

(A) Regional Geography.

(i) India.

(ii) English Speaking North America.

(iii) An area to be arranged from year to year.

(A course of one lecture per week throughout the session for each area).

(B) Selected studies in Economic Geography.

(Two lectures per week throughout the session).

(C) Selected studies in Historical and Political Geography.

(Two lectures per week throughout the session).

Tutorials and practical work at times to be arranged. All students are required to undertake a Regional Survey under the supervision of a member of the staff.

All students in Geography are required to attend class excursions. At intervals, vacation courses are arranged, in conjunction with other British Universities for the intensive study of type regions at home and abroad.

Courses adapted to requirements of Modern Language students to be arranged as required.

HONOURS COURSES

Probationary Honours

General Principles of Geography and a regional course together with at least one tutorial class per week.

Second Year

A.—Principles of Human Geography—two hours per week.

B.—Geomorphology—one lecture and three hours laboratory per week.

C.—A regional course—one lecture per week. In 1930-31 Europe.

D.—A course on the History of Geography—one lecture per week.

Tutorials and discussions at times to be arranged. All students are required to undertake a Regional Survey under the supervision of a member of the staff.

Third Year

Lectures and discussion classes, about 8 hours, at times to be arranged.

All students are required to attend class excursions. At intervals, vacation courses are arranged in conjunction with other British Universities for the intensive study of type regions at home and abroad.

ECONOMICS**I. General Economics**

The evolution of modern economic conditions. Modern industrial, commercial and social organisation. The national income. Value and distribution.

Tuesday and Thursday at 10 a.m.

FINAL COURSES**IIA. Financial and Commercial Organisation**

Business Organisation and management; Large and small businesses; joint stock enterprise; the trust movement. Land and Water Transport. Insurance. Currency and banking, the money market, stock exchange and foreign exchanges. The organisation of foreign trade.

Tuesday and Thursday at 11 a.m.

IIB. Public Finance and Administration

Public expenditure and revenue. Rates, taxes, and public debts. The Budget. Relations of central and local administration. Local Rates. Grants in Aid. Municipal finance and administration. National and Municipal Industries.

Two hours a week at times to be arranged.

IIC. Social Science and Administration

The influence of industrial conditions on social life; the problems of poverty, housing, sweating and unemployment. Some social aspects of industry. Employment of women and children. Schemes of industrial betterment. Industrial and social legislation.

Two hours a week at times to be arranged.

IID. Economic History

A general course beginning with the Manor and ending with the Nineteenth Century, with special attention to a particular period. In connexion with this course Dr. Maud Sellers will lecture in the Spring and Summer terms on "Mediæval Industrial and Municipal Institutions."

Two hours a week at times to be arranged.

II.E. Industrial Relations

Methods of remuneration ; trade union organisation ; conciliation and arbitration ; joint industrial councils, works committees, etc. Personnel, Management and Industrial Psychology. Industrial fatigue. Trades Boards. Factory legislation. International Labour Organisation.

Tuesday and Thursday at 10 a.m.

II.F. Economic Theory

Two hours a week.

HONOURS AND M.A. COURSES**H1. Advanced Economic Theory****H2. History of Economic Thought****H3. Economic History : Special Period**

This class will cover the general Economic History of the period 1485 - 1660, and will include the use of documents.

Two hours a week.

H4. Industrial and Financial Organisation

The nature and duties of the State and the basis of Citizenship.

Two hours a week at times to be arranged.

H5. Industrial Relations**H6. Political Theory****Special Courses**

Students in the Economics department may attend other courses provided for students in the department of commerce and social organisation. Courses will normally be offered on The Theory of Statistics ; The interpretation of Social Statistics, Local Government, and The Social History of the XIXth century. When required special courses will be given on The Organisation of Foreign Trade ; Business Finance ; The Banking systems of the chief modern states ; and on the economics of the following industries : mining, engineering, iron and steel manufacture, textile manufacture, and transport by land and sea.

EDUCATION

The courses of study organised in connexion with the Department of Education are (1) a Four Year Course, (2) a Course for the Diploma in Education, (3) Post-graduate Courses for the higher degrees of M.A. (Education) or M.Ed. Students may enter upon one or other of the first two courses either as Recognised Students in Training under the Regulations of the Board of Education or without such recognition. In the former case, subject to certain conditions, grants are paid by the Board of Education towards tuition and maintenance. Recognised Women Students must reside either at home or in a University Hall of Residence; Men Students who cannot live at home reside in a University Hall of Residence or in registered lodgings.

I. Four Year Course

This course leads to the degree of B.A., B.Sc., or B.Com., together with the Diploma in Education, or the Certificate of the Board of Education. It is open to students who have passed the matriculation examination or its equivalent. The first three years are mainly occupied with academic work for the degree, one half-day a week being set apart for professional work. The fourth year is post-graduate and wholly devoted to professional training. This is the normal course for Recognised Students.

The work in this course is divided into (a) Academic (leading to a degree), and (b) Professional (leading to the Diploma).

(A) ACADEMIC

The academic Courses are those for the Degrees of B.A., B.Sc., and B.Com. of the University of Leeds. Honours Courses may be taken by those qualified to enter upon them. The standard of attainments for admission to an Honours Course is that of a satisfactory pass at one of the Higher School Certificate Examinations.

(B) PROFESSIONAL

The scope of the work is practically the same as given in Section II. following.

This course of professional training is taken by all Recognised Students in the fourth year, but in the case of those who have failed to pass the final examination for a degree, leads only to the Teacher's Certificate of the Board of Education.

Recognised Students who fail to make satisfactory progress during the first year of the degree course may thereafter follow one of two courses :—

- i. With the approval of the Board of Education, they may intercalate a year at their own expense, and if they make satisfactory progress in this year they may then resume their Recognised Studentships, or,
- ii. They may relinquish their academic work for a degree and spend a year in professional training under the Regulations for the Training of Teachers. On the successful completion of this course they will be recognised as *uncertificated* teachers.

II. Post-graduate Course for Diploma in Education

This course is open to graduates of the University of Leeds or other approved Universities, and normally extends over one year.

I. Lectures and Laboratory Work

- (a) The principles and methods of education and teaching.
- (b) The psychological bases of education.
- (c) Physical, intellectual, and moral development of the child.
- (d) The History of Education (with selected work or works).
- (e) Educational Systems.
- (f) Experimental Education (with laboratory practice).
- (g) Modern Problems in Education.
- (h) Physical Development, Hygiene and Physical Training.

In addition there are alternative courses in Scientific Method and Advanced Psychology.

II. Practical Training

The training includes (a) demonstrations in teaching by members of the staff of the Department, by other members of the University, and by teachers in the University Demonstration Schools ; (b) Criticism lessons and other teaching exercises by the students themselves ; (c) Attendance at various schools, elementary, continuation, central and secondary, for observation and practice ; (d) visits to special schools and institutions.

Attendance is required at courses on Teaching Illustration by Drawing, Handicrafts, Needlework, Music or Gardening.

Candidates for the Diploma in Education may, if they so desire, apply for admission as Recognised Students. If admitted they will be eligible for tuition and maintenance grants subject to certain conditions.

III. Higher Degree Courses

(i) M.A. (EDUCATION).

Education is one of the subjects which may be taken for the degree of M.A. which is open to graduates in Arts of at least one year's standing of the University of Leeds or other approved university. It is awarded for a dissertation or thesis on some educational subject approved by the Board of the Faculty of Arts, together with an examination in one of the branches of the Theory or History of Education. In special cases it is within the power of the Senate on the application of the candidate and on the special recommendation of the Board of the Faculty of Arts, to award the degree on submission of a dissertation only. All candidates may be called upon to present themselves for examination, written or oral, on the theme of their dissertation.

Graduates of approved universities are required to present evidence satisfactory to the Senate that they are qualified to pursue a course of advanced study or research in Education, and to present themselves for the degree of M.A. after not less than two years of such advanced study or research.

(ii) M.ED.

The degree of Master of Education has been established to promote advanced study, independent criticism, and original research in education.

RESIDENCE

(Recognised Students)

• Men students who do not live with parents or guardians are required to live in lodgings registered and inspected by the University Authorities, or may apply to reside in the University Hall of Residence for Men.

Women students who do not live with parents or guardians are required to reside in one of the University Halls of Residence for Women.

Recognised Students who live at home or in lodgings receive a maintenance grant from the Board of Education (£26 a year for men and £20 for women) if the Board are satisfied by a certificate from the University Authorities that the student needs it. These grants are paid to the University and are handed over to Recognised Students after deductions have been made for University and Union fees where these are due.

ADMISSION AS RECOGNISED STUDENTS

A. Application for a Four Year Course

1. Candidates must be over 18 years of age on the first day of the academic year in which they wish to be admitted, except that under special circumstances candidates who are over 17 and under 18 years of age on that date may be admitted.

2. A candidate is required to have qualified for admission to the University as an undergraduate. (See Regulations as to Entrance Examinations for Degree Students).

3. The qualification for admission as a Recognised Student in Training is covered by the qualification for admission as an undergraduate.

Full information of the Examination Qualifications required by the Board can be obtained from List 176 of the Board of Education, which gives the conditions of admission to Training Colleges (price 1d. from H.M. Stationery Office, Adastral House, Kingsway, London, W.C.2).

4. In the selection of candidates preference is given to those who have obtained good "credits" or "distinctions" at one of the recognised School Certificate Examinations, or have obtained satisfactory results at one of the recognised Higher School Certificate Examinations. As a rule accepted candidates who have not passed the Higher School Certificate Examination before applying for admission are required to enter for that examination and their admission will be conditional on their obtaining satisfactory results.

B. General Conditions for all Recognised Students

1. Candidates, before being accepted, are required by the Regulations of the Board of Education to be examined by the Medical Officer of the Department, and can only be admitted if reported as without physical defect or organic disease, strong and in good health and capable of entering on their course without undue strain.

2. Candidates must be British subjects ordinarily resident in the United Kingdom unless this condition is specially waived by the Board of Education.

3. Candidates will be required to furnish certificates of good character.

4. Candidates on admission will be required to sign a Declaration to the effect that they intend to adopt and follow the profession of teacher in an approved school and acknowledge that in entering a Training Department they take advantage of the Parliamentary Grants by which it is aided in order to qualify themselves for the profession of teacher and for no other purpose.

MUSIC**Music I**

The harmonization of given melodies and unfigured basses in not more than four parts.

Strict counterpoint in not more than three parts.

History of Music.

• Musical form.

Music II

More advanced harmony in not more than four parts.

• Strict counterpoint in not more than four parts.

Free counterpoint in not more than three parts.

Free composition in the simplest forms.

History of Music, with a special period for detailed study.

Music III

Harmony in not more than five parts.

Double counterpoint, canon and fugue.

Free composition.

History of Music, with a special subject for detailed study.

DEGREES IN SCIENCE

(a) Degrees in Pure Science

- Ordinance** 1. The degrees in Pure Science¹ shall be :
- Bachelor of Science (B.Sc.)
 - Master of Science (M.Sc.)
 - Doctor of Philosophy (Ph.D.)
 - Doctor of Science (D.Sc.)

DEGREE OF BACHELOR OF SCIENCE

2. The degree of Bachelor of Science shall be conferred either (i) as an Ordinary degree, or (ii) as a General Honours degree, or (iii) as a Special Honours degree.

3. All candidates for the degree of Bachelor of Science shall be required to have passed the Matriculation examination or obtained a certificate of exemption therefrom, and thereafter to have pursued courses of study for not less than three academic years.

Regulations The record of students at their departmental examinations may be taken into account in deciding the results of degree examinations.

Candidates may, with the consent of the D  an of the Faculty in the case of Ordinary and General Honours Degrees or of the Head of the Department in the case of a Special Honours School, present subjects more in number and higher in grade than those required by the Ordinances for those proceeding to a degree. Additional subjects need not be confined to those prescribed in the Regulations for the Science degree.

Candidates presenting a subject at a higher grade and failing to pass therein may, at the option of the examiners, be recommended for a pass in a lower grade.

Candidates who satisfy the examination requirements of the Ordinary degree in two sessions must satisfactorily pursue a course of study in the third session approved by the Board of Science and Technology.

¹ Graduates in Pure Science may also proceed to the degree of Master of Education (M Ed)

Concessions to Higher School Certificate Holders

Students taking a Science Degree may be exempted by the Board of Science and Technology from the Introductory courses and corresponding examinations in the subjects already passed in the Higher School Certificate examination, or in an equivalent examination, provided that they have passed the examination at a sufficiently high standard and pursue an approved alternative course of study.

Applications for such exemptions should be made by the student (a) to the Head of the Department in which he is presenting himself for Honours in the case of a Special Honours candidate (b) to the Dean of the Faculty of Science in the case of any other candidate.

Ordinary Degree of Bachelor of Science

4. Every candidate shall be required to attend Ordinance approved courses of study and to pass the prescribed examination *either* (i) in two Principal subjects and two Introductory subjects, *or* (ii) in two Principal subjects and one Subsidiary subject *or* (iii) in one Principal subject, two Subsidiary subjects and one Introductory subject.

5. The courses of study shall extend over at least three years for a principal subject, two years for a subsidiary subject and one year for an introductory subject.

6. The whole examination in any subject must be taken at one and the same time ; but candidates may present themselves for examination in any subject or subjects when they have completed the prescribed course or courses. The examinations will ordinarily be held in June of each year.

7. Candidates may choose from the subjects specified in the Regulations for the Ordinary degree, provided that either Mathematics or Physics be taken as one of the subjects, and that such other restrictions as are set forth in the Regulations be observed.

Degree of Bachelor of Science with Honours

(N.B.—The following Articles 8-13 apply to both the General Honours and the Special Honours Schools).

8. All candidates shall be required to attend approved courses of study extending over three or four years, and to pass the prescribed examinations, as defined under the Regulations for the General Honours degree and the various Special Honours Schools.

9. Names of candidates who have passed the examination for the degree of Bachelor with Honours will be published in such form as to distinguish the Honours School in which severally they may have passed; the names of those who have passed in Honours being drawn up in three classes, and each class being arranged in alphabetical order.

10. Candidates who have not acquitted themselves so as to deserve Honours, but have reached the standard of the Ordinary degree may be recommended for that degree. They will not be allowed to present themselves a second time for the same Honours examination.

11. Subject to the provision of Articles 17 and 21 below, every candidate for the degree of Bachelor of Science with Honours shall ordinarily be required to present himself for examination at the end of the third or fourth or fifth academic year from the time when he has entered upon one of the courses of instruction approved by the University for such degree, unless he shall present a medical certificate of illness satisfactory to the Senate. The examination shall ordinarily be held in June of each year.

12. Candidates who have passed the examination for the Ordinary degree of Bachelor of Science may, during the following session, proceed with the course of study in an Honours School and may present themselves for examination for the Honours degree in the fourth or fifth session of their University course.

13. Candidates who have passed the Honours examination in any of the Honours Schools may, during the following session, proceed with the course of study in another

Honours School and may thereafter present themselves for examination in this second Honours School in the fourth or fifth session of their University course.

General Honours School

14. The General Honours degree shall be awarded on an examination of a higher standard than that required for the principal subjects of the Ordinary degree examination.

15. Candidates shall present themselves for examination in not fewer than three subjects, to be taken at one and the same time.

16. The class awarded to a candidate shall be determined on the results of the examination taken as a whole, but no credit will be given for any subject in which the candidate falls below a minimum standard prescribed by the Senate.

17. Candidates who propose to proceed afterwards to Special Honours, Medicine, Applied Science or other approved courses of study, may be examined at the end of their second year if approved by the Senate after reports from the Heads of Departments concerned. In no case will a candidate be admitted to a degree until he has completed attendance on approved courses for three academic years (see Article 3).

18. Candidates are allowed a choice of the subjects specified in the Regulations for the General Honours degree, subject to such restrictions as there set forth.

Special Honours Schools

19. Candidates may choose one of the Special Honours Schools specified in the Regulations for the Special Honours degree, and must follow the course of study prescribed for each Special Honours School.

20. Candidates who shall present evidence satisfactory to the Senate that they are qualified to enter upon a course of research may receive permission to pursue such a course, and to offer a thesis on their work in place of part or the whole of the Honours examination; but no candidate shall be excused the whole of the Honours

examination unless he shall have satisfied the examiners in the subject of his Honours School as a principal subject for the Ordinary degree and in the other subjects prescribed for that Special School.

Each application for the recognition of research work must be made to the Senate not later than the last day of the October preceding the Honours examination, together with a statement of the intended subject of research, and a summary of the course of work actually pursued must be presented not later than the first day of the May preceding the Honours examination.

Candidates whose thesis does not satisfy the examiners shall not receive the Honours degree, but may be recommended for the Ordinary degree.

21. Candidates in one Special Honours School who propose to proceed afterwards to another Special Honours School, Medicine, Applied Science or other approved courses of study, may be examined at the end of the second year if approved by the Senate after reports from the Heads of Departments concerned. In no case will a candidate be admitted to a degree until he has completed attendance in approved courses for three academic years.

DEGREES OF BACHELOR OF SCIENCE IN PURE SCIENCE

I. Ordinary Degree

Regulations 1. Introductory, subsidiary and principal subjects can be selected as follows, subject to the restrictions laid down in the Ordinances for the Ordinary degree, Articles 3-7 :—

Introductory :

Mathematics

Physics

Chemistry

Zoology

Botany

Geology

Geography

A one year course in Arts selected from the first year subjects for the Ordinary B.A. degree.

*Any approved course in Technology.

* The following course has been approved : Fuel and Metallurgy.

Subsidiary :

Mathematics	Geology
Statistics	Geography
Physics	Human and Comparative
Chemistry	Anatomy
Zoology	Bacteriology
Botany	*Any approved course in
Physiology	Technology

Principal :

Mathematics	Geology
Physics	Geography
Chemistry	Human and Comparative
Zoology	Anatomy
Botany	Bacteriology
Physiology	

2. Geology and Geography shall not be taken together as principal subjects; students intending to offer Geography as a principal subject must pass in Geology at the introductory stage.

3. Students taking Mathematics as a principal or subsidiary subject may not take Statistics as a subsidiary subject, but may take Statistics S. and Mathematical Laboratory M.L. in place of an introductory subject.

4. Candidates presenting Human and Comparative Anatomy as a principal or subsidiary subject are required to take Introductory Zoology in their first year of study.

5. Candidates presenting Physiology or Bacteriology as a principal or subsidiary subject are required to take Introductory Botany and Introductory Zoology in their first year of study.

6. In the Final examination a paper will be set containing passages of French and German for translation into English, relating to the principal subject or subjects of a candidate's degree course. All candidates may take this paper, and marks will be awarded for correct renderings of such passages. Candidates will be allowed the use of dictionaries at this Language Test examination.

* The following course has been approved: Plant Physiology and Horticulture.

7. Examiners will take account of the command of English language shown by candidates.

II. General Honours School

N.B.—Students who enter for this School with no other qualification than a Matriculation Certificate will not in general be able to attain the necessary standard in the three subjects in less than four years.

1. Candidates must choose at least three subjects from the following list :—

Mathematics	Physiology
Physics	Geology
Chemistry	Geography
Zoology	Human and Comparative
Botany	Anatomy

2. In the Final examination a paper will be set containing passages of French and German for translation into English, relating to the principal subject or subjects of a candidate's degree course. All candidates may take this paper, and marks will be awarded for correct renderings of such passages. Candidates will be allowed the use of dictionaries at this Language Test examination.

III. Special Honours Schools

1. Candidates may choose a Special Honours School from the following list :—

Mathematics	Physiology
Physics	Geology
Chemistry	Human and Comparative
Zoology	Anatomy
Botany	Bacteriology

2. In the Final examination a paper will be set containing, for translation into English, a passage of French and a passage of German, relating to the subject in which the candidate is presenting himself for Honours. All candidates will be required to take this paper, and to satisfy the examiners in the translation of both these

passages. Candidates will be allowed the use of dictionaries at this Language Test examination.

3. All candidates will be required to present themselves for a Degree examination in each subject of their Honours School on completion of their course in that subject.

Degree and Departmental Examinations

1. *Degree Examinations :*

- (a) Degree examinations as laid down by Regulation will usually be held in June.
- (b) Every candidate will be required to present himself at the degree examination in each subject at the end of the session in which he has completed his course of study in that subject, unless he has obtained the permission of the Board of Science and Technology to defer his examination.

2. *Departmental Examinations :*

- (a) In addition to the Degree examinations, Departmental examinations will be held at times and on conditions determined by the Head of the Department concerned. All students studying for a degree are required to submit themselves to such departmental examinations in their subjects of study.
- (b) In courses extending over more than one session students may not commence the more advanced work of a succeeding session unless they have done the work required throughout the course to the satisfaction of the Head of the Department and have passed the Departmental examinations.

3. *Conditions of entry :*

Entries for the June examinations—both Degree and Departmental—shall in all cases be made through the Clerk to the Senate. Only those students whose lecture and laboratory attendances are approved by

the Heads of Departments concerned, and whose entry forms are received before March 1st, will be admitted to the examinations.

N.B.—The attention of students is drawn to the General Regulations for Students, Clause 12, respecting departmental examinations.

Prescribed Subjects of Study and Examination

I. Ordinary Degree

MATHEMATICS.

Introductory Course (one session).

Subsidiary Course (two sessions):—

1st year: Mathematics Intro.

2nd year: Mathematics F₁ and F₂.

Principal Course (three sessions):—

1st year: Mathematics Intro.

2nd year: Mathematics F₁ and F₂.

3rd year: Mathematics F₃ and F₄.

STATISTICS (*as a Subsidiary subject*).

1st year: Mathematics for Applied Science students, J.

2nd year: Statistics S. and M.L.

PHYSICS.

Introductory Course extends over one session. Three lectures in each week with three hours in the laboratory.

Subsidiary Course (two sessions):—

1st year: Physics Intro.

2nd year: Physics F₁, with six hours laboratory.

Principal Course (three sessions):—

1st year: Physics Intro.

2nd and

3rd years: Physics F₁ and F₂ with six hours laboratory each week.

CHEMISTRY.

Introductory Course (one session.) Chemistry Intro., with laboratory work.

Subsidiary Course (two sessions):—

Two of the following courses:—

Chemistry Intro.

Chemistry F₁.

Chemistry F₂.

Chemistry F₃.

With laboratory work.

Principal Course (three sessions):—

Chemistry Intro., F₁, F₂, F₃, and laboratory work in the Inorganic, Organic and Physical Chemistry laboratories.

ZOOLOGY.

Introductory Course :—

Zoology Intro., two lectures and four hours laboratory weekly.

Subsidiary Course (two sessions) :—

1st year: Zoology Intro., with four hours laboratory.

2nd year: Zoology F Course (A) or (B), according to the session. Three lectures and 6 hours laboratory work throughout one session.

Principal Course (three sessions) :—

1st year: Zoology Intro., with four hours laboratory.

2nd and

3rd years: Zoology F Courses (A) and (B) (two successive sessions). Three lectures and at least six hours laboratory work weekly.

BOTANY.

Introductory Course :—

Botany Intro., six hours a week for session,

Subsidiary Course (two sessions) :—

1st year: Botany Intro. or Botany F I (A or B), with three hours laboratory.

2nd year: Botany F I (A or B), with six hours laboratory.

Principal Course (three sessions) :—

1st year: Botany Intro.

2nd and

3rd years: Botany F I (A and B), with six hours laboratory work for two sessions.

PHYSIOLOGY.

(1) *Subsidiary Course :—*

1st year: Zoology Intro. and Botany Intro.

2nd year: Physiology IIB and IIE.

(2) *Principal Course :—*

1st year: Zoology Intro. and Botany Intro.

2nd year: Physiology IIB. and IIE.

3rd year: Physiology IIC and IIF. with one additional term practical work.

NOTE.—It is not contemplated that candidates taking Physiology as a subsidiary subject for the Ordinary Degree will be medical students.

GEOLOGY.

Introductory Course :—

Geology Intro: Three hours' lectures, three hours laboratory. Field work: three expeditions (one in each term).

Subsidiary Course (two sessions) :—

1st year : Geology Intro.

2nd year : Geology F₁ (three hours), with six hours laboratory.

Geology Field Course : alternate Saturdays throughout the session.

Principal Course (three sessions) :—

1st year : Geology Intro.

2nd and

3rd years : Geology F₁ and F₂ three hours ; Scheme 'A' (Palaeontology) lecture course, two hours ; Scheme B (Petrology), lecture course, two hours, with six hours laboratory.

Geology Field Course : alternate Saturdays throughout the session.

GEOGRAPHY.***Introductory Course*** :—

Geography Intro., with three hours laboratory.

Subsidiary Course (two sessions) :—

1st year : Geography Intro.

2nd year : Geography F₁, with six hours laboratory.***Principal Course*** (three sessions) :—

1st year : Geography Intro.

2nd year : Geography F₁, with six hours laboratory.3rd year : Geography F₂, with six hours laboratory.**BACTERIOLOGY.*****Subsidiary Course*** (two sessions) :—

1st year : Zoology Intro. and Botany Intro.

2nd year : Bacteriology VIIA. and VIIB. (ii).

Bacteriology IXA.

Principal Course (three sessions) :—

1st year : Zoology Intro. and Botany Intro.

2nd year : Bacteriology VIIA. and VIIB. (ii) and IXA.

3rd year : Bacteriology IXB. and Laboratory Work.

II. General Honours Degree**MATHEMATICS.** (Three sessions).Mathematics F₁, F₂, F₃, F₄, G, together with a Course in the History of Mathematics.**PHYSICS.** (Three sessions).Physics Intro., F₁, F₂ and G, with nine hours laboratory each week for the last two sessions. In addition special reading will be prescribed.

CHEMISTRY. (Three sessions).

Chemistry Intro., F1, F2, F3, together with one Honours Course and laboratory work in the Inorganic, Organic and Physical Chemistry laboratories.

ZOOLOGY. (Three sessions).

1st year : Zoology Intro., with four hours laboratory.

2nd and

3rd years : Zoology F, Courses (A) and (B), extending over two consecutive sessions (three lectures and a minimum of six hours laboratory work weekly).

Zoology H. Discussion class, one hour weekly.

(Students will be exempted from part or the whole of the Introductory Course only when they can submit satisfactory evidence of proficiency).

BOTANY. (Three sessions).

The Principal Course for the Pass B.Sc., together with attendance at the Honours lectures during one session.

NOTE.—Usually the requirements of this course can only be fulfilled by students who are sufficiently prepared to commence work upon the Final Course in their first year.

PHYSIOLOGY.

1st year : Introductory subjects.

2nd year : Physiology IIB. and IIE.

3rd year : Physiology IIC. and IIF. together with attendance at honours lectures and practical work.

GEOLOGY. (Three sessions).

1st year : Geology Intro.

2nd and

3rd years : Geology F1 and F2, with six hours laboratory Scheme A or Scheme B as for Principal Course.

Attendance at the Honours lectures (two hours per week) will be required in the third session.

Geology Field Course : alternate Saturdays throughout the session.

GEOGRAPHY.

1st year : Geography Intro.

2nd and 3rd years : Geography F1 and F2, with one Honours Course and six hours laboratory in each session.

Seminar : One Meeting in each week.

III. Special Honours Degree**MATHEMATICS.**

Students taking the Special Honours School of Mathematics will take the Special Honours Courses in Mathematics together with one selected additional subject from Arts, Science, or Applied Science up to the standard of a subsidiary subject in Science after consultation with the Head of the Department of Mathematics. Students wishing to take this additional subject at the standard of a Principal subject may upon producing satisfactory evidence of their knowledge of the subject be excused the one year or Introductory course. Students may be allowed with the consent of the Head of the Department of Mathematics, to substitute for one subject at the Subsidiary standard (i) two additional subjects at the one-year or Introductory standard, or (ii) Statistics and one additional subject at the one-year or Introductory standard.

PHYSICS.*Three Years Course :—*

- 1st year : Physics Intro. and F₁.
Mathematics F₁ and F₂.
Chemistry Intro.
- 2nd year : Physics F₂ and H, with twelve hours laboratory.
Mathematics F₃ and F₄.
- 3rd year : Physics H, with twelve hours laboratory.

Four Years Course :—

- 1st year : Physics Intro.
Mathematics Intro. and F₂.
Chemistry Intro.
- 2nd year : Physics F₁ and F₂.
Mathematics F₁ and F₃.
- 3rd year : Physics H.
Mathematics F₄.
- 4th year : Physics H.

Together with the equivalent of twelve hours laboratory for two sessions.

CHEMISTRY.

(Three or four sessions).

Chemistry : Intro., F₁, F₂, F₃, H₁, H₂, H₃, together with two or more of the short courses (S) on special subjects.

Physics : Intro. and F₁ with laboratory work.

Mathematics : J (for Applied science students).

Additional Courses : An additional course or courses selected from the following list :—

Physics F2.

Mathematics F3 and F4.

Botany for Chemists.

Engineering.

Some branch of Applied Chemistry.

Some other subject cognate to Chemistry.

Approval of the additional course or courses must be obtained from the Head of the Department.

ZOOLOGY.

- Four Years' Course (which may be shortened to three years if the student is sufficiently prepared to begin the Final Course in his first session).

1st year : Introductory Course in Physics or Mathematics I., Zoology, and two other subjects.

2nd and 3rd years : Zoology F. (A. and B.), together with one other Principal or two Subsidiary subjects. (For Agriculture as the equivalent of a Principal subject see (2) below).

4th year Zoology H., with full-time laboratory work, including approved research or special subject of advanced study.

Provided that a student will be regarded as having satisfied all the conditions for entrance upon the fourth year's course for Honours in Zoology :

either (1) If he has been awarded a class in the General Honours Examination including Zoology as one of his subjects ;

or (2) If he has completed the course laid down for the first three years of the Special Course (d) for Honours in Agricultural Zoology.

BOTANY.

Four Years' Course (which may be shortened to three years provided that previous knowledge of the subject enables the student to commence attendance upon the FI Course in the first session).

1st year : Botany Intro.

Physics Intro. (or Mathematics for Applied Science students).

Chemistry Intro. (unless satisfactory evidence of previous knowledge of this subject can be given).

One other Introductory Course

2nd and

3rd years : Botany F1 (A and B) together with attendance at Honours lectures in third year, with six hours laboratory.

One other principal subject or two Subsidiary subjects.

4th year : Botany H., with full-time Laboratory work, including the necessary study of a special problem with a view to presentation of a thesis as an integral part of the Honours Examination.

An Honours degree in Botany may also be obtained after a fourth year's study in the Department, by candidates who have taken the course laid down for the first three years of the Special Course C. for Honours in Agriculture.

PHYSIOLOGY.

1st year : Physics Intro.
Chemistry Intro.
Zoology Intro.
Botany Intro

2nd year : Physiology IIE. and IIE.
Chemistry F3.

Candidates must attain a satisfactory standard in the Departmental Examination in F3.

3rd year : Physiology IIC, IIF. and V.

4th year : Physiology V.

Candidates must take *one* other subject at a Principal standard or *two* other subjects at a Subsidiary standard. The subjects approved are :—

For Principal : Chemistry (in this case H1 or H3 must be taken as Additional), Physics, Botany, Zoology.

For Subsidiary : Chemistry, Physics, Botany, Zoology, Anatomy, Bacteriology.

Candidates should consult the Professor of the subject or subjects selected in regard to the work required. All such courses must be taken before the commencement of the candidate's fourth year of study.

GEOLOGY.

(Three or four sessions).

1st year : Geology Intro.
Physics Intro.

Two of the following : Mathematics for Applied Science students, Chemistry Intro., Botany Intro., Zoology Intro., Geography Intro.

Later

- sessions :** Geology F₁, F₂, H₁, Mineralogy, with 12 hours laboratory.
(Schemes A. or B.—Palaeontology or Petrology—will be taken to a higher standard).
One other Principal subject or two Subsidiary subjects.
In addition, candidates will be required to conduct some original research and present a thesis upon their work.

BACTERIOLOGY.

The following Courses are prescribed for students taking this Honours School. Course A or Course B may be followed. The latter is suitable for students proceeding to a medical degree. Students who have an elementary knowledge of Chemistry are recommended to take Chemistry F₂ in their first year, F₃ in their second year, and H₁ in their third year.

Course A :—

- 1st year :** Physics Intro.
Chemistry Intro. or F₂.
Zoology Intro.
Botany Intro.
2nd year : Bacteriology IXA.
Chemistry F₂ or F₃.
Physiology I., or Physics F₁, or Zoology F₁, or Botany F₁.
3rd year : Bacteriology VII.
Chemistry F₃, or H₁, or H₃.
Physiology Vc. or VI., or Zoology F₁, or Botany F₁.
4th year : Honours work in Bacteriology.
Bacteriology IXB. and Research.

Course B :—

Candidates may take the normal course for the M.B., Ch.B. degrees, taking in addition in their second year Bacteriology IXA., and Chemistry F₂ or F₃; and in their third year Chemistry F₃ or H₁ or H₃. Subsequently to passing Part I. of their Final M.B. they shall pursue the fourth year's Honours Course in Bacteriology. This fourth year shall be entirely devoted to bacteriological work.

(b) Degrees in Applied Science

- 1. The degrees in Applied Science¹ shall be :—**

Ordinance

Bachelor of Science (B.Sc.)
Master of Science (M.Sc.)
Doctor of Philosophy (Ph.D.),
Doctor of Science (D.Sc.)

¹ Graduates in Applied Science may also proceed to the Degree of Master of Education (M Ed.)

DEGREE OF BACHELOR OF SCIENCE

2. The degree of Bachelor of Science shall be conferred either (i) as an Ordinary degree, or (ii) as a Special Honours degree.

3. All candidates for the degree of Bachelor of Science shall be required to have passed the Matriculation examination or obtained a certificate of exemption therefrom, and thereafter to have pursued courses of study for not less than three academic years.

Regulations The record of students at their departmental examinations may be taken into account in deciding the results of degree examinations.

Candidates may, with the consent of the Dean of the Faculty in the case of Ordinary and General Honours Degrees or of the Head of the Department in the case of a Special Honours School, present subjects more in number and higher in grade than those required by the Ordinances for those proceeding to a degree. Additional subjects need not be confined to those prescribed in the Regulations for the Science degree.

Candidates presenting a subject at a higher grade and failing to pass therein may, at the option of the examiners, be recommended for a pass in a lower grade.

Candidates who satisfy the examination requirements of the Ordinary degree in two sessions must satisfactorily pursue a course in the third session approved by the Board of Science and Technology.

Concessions to Higher School Certificate Holders

Students taking a Science Degree may be exempted by the Board of Science and Technology from the Introductory courses and corresponding examinations in the subjects already passed in the Higher School Certificate examination, or in an equivalent examination, provided that they have passed the examination at a sufficiently high standard and pursue an approved alternative course of study.

Applications for such exemptions should be made by the student (a) to the Head of the Department in which he is presenting himself for Honours in the case of a Special Honours candidate, (b) to the Dean of the Faculty of Science in the case of any other candidate.

Ordinary Degree of Bachelor of Science

4. Every candidate shall be required to attend courses of study as set forth in the Regulations for his particular School of Applied Science. Ordinance

5. The courses of study in each School of Applied Science shall extend over at least three years.

Degree of Bachelor of Science with Honours

6. Candidates shall be required to attend the prescribed courses of study as defined under the Regulations for the various Special Honours Schools of Applied Science and to pass the prescribed examinations.

7. Names of candidates who have passed the examination for the degree of Bachelor with Honours will be published in such form as to distinguish the Honours School in which severally they may have passed; the names of those who have passed in Honours being drawn up in three classes, and each class being arranged in alphabetical order.

8. Candidates who have not acquitted themselves so as to deserve Honours, but have reached the standard of the Ordinary degree, may be recommended for that degree. They will not be allowed to present themselves a second time for the same Honours Examination.

9. Every candidate for the degree of Bachelor of Science with Honours shall ordinarily be required to present himself for examination at the end of the third or fourth or fifth academic year from the time when he has entered upon one of the courses of instruction approved by the University for such degree, unless he shall present a medical certificate of illness satisfactory

to the Senate. The examination shall ordinarily be held in June of each year.

10. Candidates who have passed the examination for the Ordinary degree of Bachelor of Science may, during the following session, proceed with the course of study in a Special Honours School and may present themselves for examination for the Honours degree in the fourth or fifth session of their University course.

11. Candidates who have passed the Honours examination in any of the Special Honours Schools may during the following session proceed with the course of study in another Special Honours School, and may thereafter present themselves for examination in this second Honours School in the fourth or fifth session of their University course.

Special Honours Schools

12. Candidates may choose one of the Special Honours Schools in Applied Science specified in the Regulations for the Special Honours Degree in Applied Science, and must follow the course of study as prescribed in the Regulations for each Special Honours School in Applied Science.

13. Candidates who shall present evidence satisfactory to the Senate that they are qualified to enter upon a course of research may receive permission to pursue such a course, and to offer a thesis of their work in place of part or the whole of the Honours examination ; but no candidate shall be excused the whole of the Honours examination unless he shall have satisfied the examiners in the subject of his Honours School of Applied Science up to the standard of the Ordinary degree in that School.

Each application for the recognition of research work must be made to the Senate not later than the last day of the October preceding the Honours examination, together with a statement of the intended subject of research, and a summary of the course of work actually

pursued must be presented not later than the first day of the May preceding the Honours examination.

Candidates whose thesis does not satisfy the examiners shall not receive the Honours degree, but may be recommended for the Ordinary degree.

DEGREE OF BACHELOR OF SCIENCE IN APPLIED SCIENCE

Ordinary and Honours Degrees

Candidates may choose an Applied Science School Regulations
(Ordinary or Honours) from the following list:—

Civil Engineering
Mechanical Engineering
Electrical Engineering
Mining Engineering
Gas Engineering
Fuel and Metallurgy
Chemistry of Leather Manufacture.
Colour Chemistry and Dyeing
Agriculture
Textiles (*Ordinary only*)

Ordinary Degree in Applied Science

In the Final examination a paper will be set containing passages of French and German for translation into English relating to the principal subject or subjects of a candidate's degree course. All candidates may take this paper, and marks will be awarded for correct renderings of such passages. Candidates will be allowed the use of dictionaries at this Language Test examination.

Examiners will take account of the command of English language shown by candidates.

Honours Degree in Applied Science

In the Final examination a paper will be set containing, for translation into English, a passage of French and a passage of German, relating to the subject in which

the candidate is presenting himself for Honours. All candidates, except Engineering candidates, will be required to take this paper, and to satisfy the examiners in the translation of both these passages. Engineering candidates may take this paper, and marks will be awarded for correct renderings of such passages. Candidates will be allowed the use of dictionaries at this Language Test examination.

N.B.—Detailed subjects of study for degrees in Applied Science (Ordinary or Honours) will be found set forth in the various Departmental prospectuses.

Degree and Departmental Examinations • •

1. *Degree Examinations :*

- (a) Degree examinations as laid down by Regulation will usually be held in June.
- (b) Every candidate will be required to present himself at the degree examination in each subject at the end of the session in which he has completed his course of study in that subject, unless he has obtained the permission of the Board of Science and Technology to defer his examination.

2. *Departmental Examinations :*

- (a) In addition to the Degree examinations, Departmental examinations will be held at times and on conditions determined by the Head of the Department concerned. All students studying for a degree are required to submit themselves to such departmental examinations in their subjects of study.
- (b) In courses extending over more than one session students may not commence the more advanced work of a succeeding session unless they have done the work required throughout the course to the satisfaction of the Head of the Department and have passed the Departmental examinations.

3. *Conditions of entry :*

Entries for the June examinations—both Degree and Departmental—shall in all cases be made through the Clerk to the Senate. Only those students whose lecture

and laboratory attendances are approved by the Heads of Departments concerned, and whose entry forms are received before March 1st, will be admitted to the examinations.

N.B.—The attention of students is drawn to the General Regulations for Students, Clause 12, respecting departmental examinations.

• . DEGREE OF MASTER OF SCIENCE

1. The degree of Master of Science may be conferred, Ordinance
on payment of the proper fee and subject to the conditions laid down in paragraphs 2 and 3 :—

- (a) Upon Bachelors of Science of the University who have graduated with Honours of not less than one year's standing and other Bachelors in any Faculty of not less than two years' standing ;
- (b) Upon Graduates of other Universities, who have been accepted by the Senate as candidates for the degree of M.Sc., and who have prosecuted approved research in the University for not less than two years ;
- (c)* Upon persons whose qualifications have been accepted by the Senate in lieu of a degree, and who have prosecuted approved research in the University for a period of two years or more, as determined by the Senate in each case.

2. Candidates for the degree of Master of Science shall in all cases prosecute research on a subject approved by the Board of the Faculties of Science and Technology, and shall thereafter present to the Senate a thesis embodying the results of their research. They shall also submit themselves to an examination if required.

3. Candidates who are required under Article 1, § (b), (c) to prosecute research in the University for a period of two or more years may obtain permission from the Senate to spend one or more years in acquiring a competent knowledge of a new subject provided that

* The attention of persons who desire to avail themselves of Section (c) is directed to Statute XIII, to Ordinance IX and to the particulars relating to the Matriculation examination in the University Calendar.

the whole of the final year is devoted to post-graduate study and research.

Regulations 1. Candidates admitted under the provisions of Article 1 (b) or (c) shall be required to fulfil the following conditions :—

- (a) To be registered as students of the University.
- (b) To pursue a course of advanced study or research under the supervision of the Head of the Department concerned.
- (c) To give evidence to the Senate at the end of the first year of their period of study that their work has been satisfactory, and at the end of their course they shall be required to present a dissertation, and to satisfy such further test, if any, as the Senate shall deem expedient. They may be called upon to present themselves for an examination,—written, or oral, or both—in the theme of their dissertation.

2. Graduates of the University of Leeds shall be required to present a dissertation, and to satisfy such further test, if any, as the Senate shall deem expedient. They may be called upon to present themselves for an examination—written, or oral, or both—in the theme of their dissertation.

3. A copy of the thesis submitted in support of the application will be retained in the University Library.

DEGREE OF MASTER OF EDUCATION

(see under Degrees in Arts).

DEGREE OF DOCTOR OF PHILOSOPHY

(see under Degrees in Arts).

DEGREE OF DOCTOR OF SCIENCE

Ordinance 1. The degree of Doctor of Science is conferred by the University upon registered Masters of Science or Doctors of Philosophy of the University who shall be deemed by the Senate, after considering a report from one or

more of the Boards of Faculties, to have distinguished themselves by their original contributions to science.

Provided that the Senate may, in such cases as it shall think fit, after considering a report from one or more of the Boards of the Faculties, also require candidates to pass such an examination as it may from time to time determine.

2. A Master of Science or a Doctor of Philosophy of the University may make application for the degree of Doctor of Science in the sixth, or any subsequent year from the date of his admission to the Bachelor's degree, or from the date of his acceptance as a candidate for the M.Sc. or Ph.D. degrees.

3. If the application be approved by the Senate, the degree may be conferred at the expiration of not less than six years from the date of admission to the Bachelor's degree, or from the date of his acceptance as a candidate for the M.Sc. or Ph.D. degrees.

4. Application for the degree of Doctor of Science shall be made in writing to the Clerk to the Senate before February 1st in any session. It should be accompanied by three copies of the thesis and/or publications submitted in support of the application. Theses not already published shall be drawn up in a form suitable for publication. In the case of work submitted under joint authorship, the applicant shall be required to indicate to the satisfaction of the Senate his own share in the joint production. A copy of the thesis submitted in support of the application will be retained in the University Library. Regulation

DIPLOMAS IN SCIENCE AND TECHNOLOGY

Diplomas shall be granted by the University, in such subjects as the Council may from time to time determine, to students who pursue the courses of study and pass the examinations prescribed. Ordinance

The Council is empowered to make from time to time Regulations under which such Diplomas shall be awarded.

The award of Diplomas under the provisions of this Ordinance is delegated to the Senate.

Regulations Candidates for Diplomas are required to give satisfactory attendance upon all the subjects which form part of their course of study, and to present themselves for any departmental examinations that may be held in the same. The record of students at their departmental examinations will be taken into account in deciding the results of Diploma examinations.

At the close of the course, candidates will be required to present themselves for such examination in the main subject of study as may be prescribed.

Some deviation from these courses may be sanctioned in special cases, and students who on entering upon a Diploma course produce evidence that they possess a sufficient knowledge of the work done during a part of the course will be allowed to dispense with a certain amount of attendance. Applications for exemption from attendance should be made to the Head of the department concerned, who shall bring them before the Standing Committee of the Senate appointed to deal with such matters.

Diplomas are granted by the University in the following subjects :—

- Agriculture
- Animal Biology
- Civil Engineering
- Mechanical Engineering
- Electrical Engineering
- Mining Engineering
- Fuel and Metallurgy
- Gas Engineering
- Dyeing
- Colour Chemistry
- Leather Manufacture
- Textiles (Post-graduate).
- Textile Industries (Technological).

(For Regulations governing the award of these Diplomas see the respective departmental prospectuses).

COURSES IN SCIENCE

MATHEMATICS

• Intro. Introductory Course in Mathematics

Mondays and Fridays at 2 p.m. and Wednesdays at 9 a.m.

• *Subjects* : Trigonometry, Calculus, Statics and Dynamics, Hydrostatics, etc.

J. Mathematics for Applied Science Students

Mondays, Tuesdays, Wednesdays and Fridays at 9 a.m.

Subjects : Trigonometry, Calculus, Analytical Geometry, Statics, Dynamics, Hydrostatics, etc.

F1. Pure Mathematics

Mondays, Wednesdays and Fridays at 12 (noon).

Subjects : Selected portions of Pure Mathematics.

F2. Applied Mathematics

Tuesdays and Thursdays at (12 noon).

Subjects : Selected portions of Applied Mathematics.

F3. Pure Mathematics

Mondays, Wednesdays and Fridays at 10 a.m.

Subjects : Further portions of Higher Algebra ; Elementary Theory and Applications of Power Series ; Differential Equations ; Analytical Geometry of three dimensions ; Mathematical laboratory, etc.

F4. Applied Mathematics

Mondays, Wednesdays and Fridays at 12 (noon).

Subjects : Easier portions of more advanced theoretical Mechanics ; other selected branches of Applied Mathematics.

G. Pure and Applied Mathematics

At hours to be arranged.

Subjects : Selected portions of more advanced branches of Pure and Applied Mathematics.

Honours Courses

The Honours Course in Mathematics consists of the study of those general branches of both Pure and Applied Mathematics, with which every graduate in Mathematical Honours is expected to be familiar. In addition the student is asked to choose that special branch of mathematics in which he is particularly interested and attends special lectures on this subject and its ancillary subjects.

R. Introduction to Statistics

Selected portions of Pure Mathematics as a basis for the study of Statistics. Elementary treatment of Statistical Data with practical applications. (The course is primarily intended for students of Commerce).

S. Statistics

At hours to be arranged.

Subjects : Mathematical theory of Statistics including practical applications.

M.L. Mathematical Laboratory.

Subjects : Graphics and methods of numerical computation : practice in the manipulation of numerical data by the use of calculating machines.

PHYSICS

Chair endowed in 1884 by public subscription in memory of the late Lord Frederick Cavendish, first President of the Yorkshire College

LECTURE COURSES**Introductory Courses****INTRO. B.**

The following subjects, experimentally illustrated, will be included in the course : Electricity, Magnetism, Sound, Light, Heat, and Properties of Matter. Suitable Text Books will be recommended by the lecturer.

INTRO. C.

A course similar to Intro. B., but intended particularly for Medical and Dental Diploma students, and compressed into the first two terms.

F1. Final Course

This course is intended for students taking Physics as a subsidiary subject.

F2. Final Course

This course is intended for students taking Physics as a principal subject.

Prospective students must have obtained at least a second class in the Introductory Departmental examinations or in default are required to take the Introductory course again concurrently with this course, unless specially exempted by the Senate.

Acquaintance with the principles of the Differential and Integral Calculus is necessary in this course.

H. Honours Course

The complete course extends over two sessions.

Reading references, including both text books and original papers, are freely given during the course.

Honours students are recommended to attend lectures in their 2nd or 3rd years on some subject other than Physics, such as for example History, English, Philosophy; Economics, Engineering, Agriculture, Textiles, etc. No examination in the chosen subject will be required, although one may be taken for test purposes if desired.

S. Special Courses

Special short courses on particular subjects will be arranged from time to time. These courses, which may be attended voluntarily by any student of Physics, will include the following:—

1. Some results of Modern Physics.
2. X-rays.
3. Crystal structure.
4. Astrophysics.
5. Nuclear Physics.
6. Experimental Mechanics for first year students.
7. Elementary Heat for first year students.

The times will be arranged, so far as is practicable, to suit the convenience of students wishing to attend.

The following time table shows the hours at which lectures are expected to take place :—

	9 to 10.	10 to 11.	11 to 12.	12 to 1.	2 to 3.	4 to 5.
MON. ..	..	Intro. <i>c</i>	F ₁ ; H	..	F ₂	..
TUE. ..	H	Intro. <i>b</i> S ₂	S ₃	S ₄	F ₂ Intro <i>c</i>	S ₁
WED. ..	..	Intro. <i>c</i>	F ₁ ; H	..	..	..
THU. ..	H	Intro. <i>b</i> S ₂	S ₃	..	..	..
FRI. ..	..	Intro. <i>c</i>	F ₁ ; H	S ₄	F ₂	..
SAT. ..	S ₄ ; H	Intro. <i>b</i>	S ₃	..	..	..

PHYSICS LABORATORIES

The Introductory, Final and Honours laboratories are open between the hours of 9.30 and 12.30 in the mornings, and between 2 and 5 in the afternoons, but students' times of attendance are arranged at the beginning of the session, and must not be altered subsequently without permission.

The *minimum* of laboratory attendance required from students of various grades is indicated below :—

Introductory B.Sc. course

three hours per week for 3 terms.

First M.B. course four " " 2 "

Final courses :—

Subsidiary six 3

Principal six 6

Honours (General) nine 6

Honours (Special) twelve 6

CHEMISTRY

LECTURE COURSES

Introductory Course

Mondays, Wednesdays, and Fridays, at 12 (noon), throughout the session.

Intro. *a*

Mondays, Thursdays and Fridays, at 2 p.m. during the first and second terms. This course is similar to the above, but is intended for medical and dental students.

In connection with these courses a tutorial class will be held one hour weekly throughout the session at times to be arranged.

Analytical Chemistry

Two short courses of lectures at times to be arranged.

Course A.

This is intended for first year students, and will deal chiefly with qualitative analysis.

Course B.

This is intended for more advanced students, and will deal with both qualitative and quantitative work.

FINAL COURSES

F1. Inorganic Chemistry

Mondays, Wednesdays, and Fridays, at 10 a.m., throughout the session.

F2. Physical Chemistry

Tuesdays, Thursdays, and Saturdays, at 10 a.m., throughout the session.

F3. Organic Chemistry

Tuesdays and Thursdays at 12 (noon), and Saturdays at 11.15 a.m., throughout the session.

F4. Medical Organic Chemistry

Fridays, at 12 (noon), and Saturdays, at 9 a.m., during the first and second terms.

HONOURS COURSES

H1. Inorganic Chemistry

Tuesdays and Thursdays, at 10 a.m. throughout the session.

H2. Physical Chemistry

Mondays and Fridays, at 10 a.m. throughout the session.

H3. Organic Chemistry

Mondays and Wednesdays, at 11 a.m. throughout the session.

Colloid Chemistry.

A general course intended for honours students and others interested in the subject will be given.

Times will be arranged at the beginning of the session.

Opportunities for practical work in this branch will be given to students possessing the necessary experience in chemical methods.

Short courses of lectures in connection with the work of technological or other departments will be arranged as required.

PRACTICAL CHEMISTRY

General Laboratory Courses

Laboratory Courses of instruction are provided in Inorganic, Organic, Medical Organic and Physical Chemistry. Students must have received a thorough training in chemical manipulation and in analytical methods before proceeding to any special branch of practical work.

Each student will be furnished with a separate working bench, a set of re-agents, water and gas, and will be required to provide himself with a regulation set of apparatus on entry,¹ and also, if necessary, a few of the more costly re-agents, and any expensive materials which he may need for the purposes of original investigation. Apparatus of a special or expensive character may be obtained on loan, subject to such conditions as may be prescribed by the Professors.

Practical Course in Sanitary Chemistry

Tuesdays and Thursdays, from 2 to 5 p.m.,² during the first and second terms.

This course is arranged on the lines laid down by the General Medical Council and is designed to meet the requirements of the Medical Officers of Health.

It will include practical instruction or demonstrations in the sanitary examination of water, air and food, and on the properties of gases, and the laws of heat.

Special fee £8 8s

INSTITUTE OF CHEMISTRY

Students wishing to qualify for admission to the Institute of Chemistry should consult the Regulations obtainable from the Registrar, Institute of Chemistry, 30, Russell Square, London, W.C.1.

¹ For the convenience of students a supply of apparatus is kept at the University, and may be purchased from the laboratory steward.

² These hours are subject to re-arrangement.

ZOOLOGY

LECTURE COURSES

Intro. Introductory Course

Lectures on Mondays and Fridays at 11 a.m. throughout the session. Practical work on Tuesdays from 2 to 4 p.m. and on Wednesdays from 10 to 12 (noon) throughout the session.

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Subjects

Terms i and ii.—General principles of animal organisation, physiology and reproduction. Elementary comparative anatomy.

Term iii.—The outlines of embryology, entomology and parasitology.

Practical Work

Terms i and ii. — Amœba, a Flagellate, Hydra, Fasciola, Earthworm, Amphioxus, Dogfish, Frog, Rabbit.

Term iii.—Monocystis, Tænia, Cockroach, Culex and Anopheles; development of Frog, Chick and Rabbit

Intro. a. Course for First M.B. Examination

The Zoological part of the course for the First M.B. examination in Biology coincides with the Introductory course above.

Practical class on Tuesdays, 11 to 1, and Thursdays, 11 to 1.

F. Final Course (Principal)

Lectures on Tuesdays and Thursdays at 11 a.m. throughout the session, and on Wednesdays at 9 a.m.

Groups A and B will be taken in alternate years, each occupying one session.

Laboratory work and tutorial class, seven hours per week, Students are also expected to take part in field excursions and to spend part of the Easter or Summer vacation at the University's Marine Laboratory at Robin Hood's Bay.

A. (1) INVERTEBRATE METAZOA. Two lectures a week.
The summer term will be devoted to Insecta.

(2) BIONOMICS, EXPERIMENTAL ZOOLOGY, AND EVOLUTION. One lecture a week.

B. (3) ECHINODERMA AND CHORDATA, with PROTOZOA.
Two lectures a week. The summer term will be devoted mainly to Protozoa.

(4) BIONOMICS AND VERTEBRATE EVOLUTION. One lecture a week.

Term i.—Cytology and Genetics.

„ ii.—Osteology and Geographical Distribution.

„ iii.—Embryology.

Final Course (Subsidiary)

Students offering Zoology as a subsidiary subject will take, according to the year, *either* A or B.

H. Honours Courses

The hours for special Honours lectures will be arranged with students at the beginning of the session.

D. Diploma in Animal Biology

Students from Training Colleges, who have completed the normal Training College course for the Teaching Certificate, may qualify for this Diploma by one year's full-time study in the Zoological Department, and by satisfying the Examiners at the end of the session.

Students preparing for this Diploma will ordinarily be required to pursue the following courses of lectures and practical work, unless exemption from particular courses be granted by the Head of the Department on the ground of previous knowledge, or to facilitate special studies :—

1. Introductory Degree Course (Intro.).
2. Subsidiary Final Course for the year, including a period at the Marine Laboratory (F, A or B).
3. Special Supplementary Course.

The Examination for the Diploma will occupy two days, and will include the Subsidiary Degree paper on the work of the year and a Special paper covering the other subjects studied, together with corresponding practical examinations.

ZOOLOGICAL LABORATORY

The Zoological laboratory will be open daily from 9.30 a.m. to 5 p.m. (Saturdays, from 9.30 a.m. to 12.30 p.m.).

Each student is required to provide himself with a pocket lens, a set of *dissecting instruments*, and a *biological drawing book* (to be obtained in the laboratory).

Microscopes may be had on loan from the University at the rate of 15s. each per session for elementary work, and £1 1s. each per session for advanced work.

First M.B. students can obtain the loan of Microscopes for their courses in both Zoology and Botany at the rate of 15s. each per session; other students taking both Zoology and Botany may pay a composite fee of £1 2s. 6d. per session for elementary work or £1 10s. per session for advanced work.

These fees must be paid in advance to the Accountant immediately after the student has arranged with the Laboratory Steward for the loan of a Microscope.

BOTANY

LECTURE COURSES

Intro. Introductory Course.

On Tuesdays and Thursdays from 9 to 10 a.m. and from 11 a.m. to 1 p.m. throughout the session.

This course includes the study of the life history of the flowering plant with especial reference to the relation of form and structure to function.

Experimental study of the simpler problems in plant metabolism, transpiration, &c.

The principles of classification and systematic botany will be briefly considered in the case of the flowering plants, and students will obtain practical experience in the use of a flora.

Each student is required to provide himself with a microscope, a pocket lens, a biological drawing book, two razors, a strop, a scalpel and a pair of forceps.

Intro. a. Course for First M.B. examination

Mondays (12 noon to 1 p.m.), Tuesdays (2 to 5 p.m.), Wednesdays (10 a.m. to 1 p.m.), and Thursdays (2 to 5 p.m.) during the third term only.

This course includes the study of the life history of the flowering plant with especial reference to the relation of form and structure to function.

Experimental study of the simpler problems in plant metabolism, involving an elementary study of permeability, tissue respiration, photo-synthesis, translocation of food substances, &c.

The study of the life history of some Algæ and Fungi in especial relation to the phenomena of saprophytism and parasitism in contrast to the normal metabolism of the green plant.

Experimental methods for investigation of relations between micro-organisms such as yeast and the medium in which it grows. Study of fermentation processes with methods of pure cultures.

Intro. b. Course for B.A. candidates

Two hour lectures and two hours laboratory per week.

The study of the flowering plant, its form, structure and physiology.

A brief study of the life history of certain types representing the main divisions of the vegetable kingdom.

Intro. c. Course for Students of Honours Chemistry

Two lectures and two hours laboratory work throughout one session. This course follows the general line of the syllabus given under Intro. a, but special attention is paid to the chemical problem of plant physiology and to methods for the study of micro-organisms which have bearing upon industrial applications of fermentation processes.

Fr. Final Course: Botany

Lectures on Mondays, Wednesdays and Fridays at 10 a.m. throughout the session. Either of the courses A and B in a somewhat modified form, will rank as a subsidiary course for the degree.

The details of the course, for students taking Botany as a subsidiary course, will be arranged in consultation with the Professor.

- A. Comparative morphology: Algæ, Fungi and Bryophyta.
Physiology of metabolism.
Cytology and Heredity.
- B. Comparative morphology: Pteridophyta, Gymnosperms
and Angiosperms.
Ecology. Systematic Botany.
Physiology of Growth and Water relations.

A course of laboratory work on each of the above courses will be provided each session.

The two years' course will prepare for the Final B.Sc. examination.

H. Honours Course

Special additional courses of Lectures will be given for Honours students at 11 a.m. on Mondays, Wednesdays and Fridays throughout the Session. They will include advanced lectures in morphology and physiology in the form of short courses on special topics.

Laboratory courses will be arranged in consultation with the Professor.

BOTANICAL LABORATORY

The Botanical laboratory will be open daily from 10 a.m. to 5 p.m. except on Saturdays.

Microscopes may be had on loan from the University at the rate of 15s. each per session for elementary work, and £1 1s. each per session for advanced work.

First M.B. students can obtain the loan of Microscopes for their courses in both Zoology and Botany at the rate of 15s. each per session; other students taking both Zoology and Botany may pay a composite fee of £1 2s. 6d. per session for elementary work or £1 10s. per session for advanced work. These fees are charged for the use of a microscope during the hours the student is in laboratory classes.

These fees must be paid in advance to the Accountant immediately after the student has arranged with the Laboratory Steward for the loan of a Microscope.

PHYSIOLOGY AND BACTERIOLOGY

For courses in these departments, see Medical Prospectus.

GEOGRAPHY

Students intending to offer Geography as a Principal subject must pass in Geology at the Introductory Stage.

Introductory Course

General Geography.

Lectures two hours per week throughout the session (Tuesdays and Fridays at 9 a.m.).

Tutorials and practical work of not less than three hours per week at times to be arranged.

F1 Courses

A.—Principles of Human Geography (two hours per week throughout the session).

B.—The Geography of the British Isles (one hour per week).

C.—Tutorials and practical work at times to be arranged (6 hours per week).

F2 Courses

A.—Geomorphology (one lecture and three hours laboratory work throughout the session).

Two of the following courses including at least one under B.

B.—Regional Geography :—

(i) India.

(ii) English Speaking North America.

(iii) An area to be arranged from year to year.

(A course of one lecture per week throughout the session for each area).

C.—Selected studies in Economic Geography. (Two lectures per week throughout the session).

D.—Selected studies in Historical and Political Geography. (Two lectures per week throughout the session).

Tutorials and practical work at times to be arranged. All students are required to undertake a Regional Survey under the supervision of a member of the staff.

All students are required to attend class excursions. At intervals, vacation courses are arranged in conjunction with other British Universities for the intensive study of type regions at home and abroad.

GEOLOGY

LECTURE COURSES

Intro. Introductory Course

Lectures on Mondays, Wednesdays and Fridays at 11 a.m. throughout the session.

Subjects: Cosmogonies; The Earth's position in the Universe; the form, size, density and movements of the earth; the elements of mineralogy; igneous, sedimentary and metamorphic rocks; processes of denudation and deposition; oceanography; movements of earth's crust and their effect upon topography; volcanoes; earthquakes—their cause and effects; Historical Geology; the interpretation of fossil fauna and flora; the building of the British Isles.

Practical Work: Three hours per week throughout the Session.

Subjects: Examination of hand specimens of common rock forming minerals, ores and other minerals of economic importance; rocks and fossils; interpretation of geological maps, elementary crystallography.

Field Work: Three excursions to important districts in Yorkshire will be made during the session.

FINAL COURSES

F1. Final Course in Geology

Mondays, Wednesdays and Fridays at 2 p.m. throughout the session; for students taking Geology as a subsidiary subject and for students taking Geology as a principal subject in the first year of their Final Course.

Subjects: The earth viewed as a whole; the deep interior of the earth; volcanic activity ancient and modern; deformations of the earth's crust; orogenic and epeirogenic movements; isostasy; permanence of continents and ocean basins—past and present theories; detailed study of sedimentation as exhibited at the present day; glacial geology; the last ice age in Britain; the principles and elements of stratigraphical Geology and Palaeontology.

F2. Advanced Geology

Three lectures a week throughout the session at hours to be arranged, for students taking Geology as a principal subject in the second year of their Final course.

Subjects: The Stratigraphical Geology of the British Isles in detail; foreign deposits which assist in the interpretation of this area.

F3. Final Courses in Palaeontology

F. 3a.—One lecture a week throughout the session for all students taking Geology as a principal subject in the first year of their Final course.

Subjects: The general outlines of Palaeontology; Morphology of Selected groups of Invertebrates; Relation of Geology and Palaeontology; the principal faunal assemblages.

F. 3b.—One lecture a week for all students presenting Palaeontology at Final and Honours (Scheme B) Standard.

Subjects: Taxonomic and Evolutionary study of the Invertebrates; Zonal Palaeontology; Faunal Provinces; Vertebrate Palaeontology; Palaeobotany.

F4. Final Courses in Petrology

F4a.—One lecture a week for all students taking Geology as a principal subject in the first year of their Final course.

Subjects : Rock-forming minerals and their optical properties. Classification of Igneous and Sedimentary Rocks ; Metamorphic Rocks.

F4b.—One lecture a week for all students presenting Petrology at Final and Honours (Scheme A) standard.

Subjects : The Genesis of Igneous Rocks. Distribution of Igneous Rocks ; Petrographical Provinces. Detailed examination of Sedimentary Rocks.

HONOURS COURSES

H1. Honours Course in Geology

Special additional courses of lectures will be given for students reading for Honours at times to be arranged.

H2. Mineralogy

A course of 30 lectures and demonstrations will be given for students reading for Honours Geology (Scheme A) ; for students of Mining Engineering and others.

Times to be arranged.

Subjects : Principles of Crystallography ; Physical and Chemical Properties of Minerals. The Genesis of Ore deposits ; Metasomatism and Secondary enrichment. Important mining districts of the World with special reference to the British Isles.

SPECIAL CLASSES

S. Agricultural Geology

A course of about 60 Lectures will be given during the first and second terms on Wednesdays at 10 a.m. and Fridays at 12 noon.

Subjects : The position of the earth in the Solar System and its movements ; determination of temperature Zones ; Seasons. Igneous, Sedimentary and

Metamorphic Rocks. Processes of denudation and soil formation; deposition of sediments; warp; forms of stratification; simple earth movements. Stratigraphical Geology with special reference to Yorkshire; drift deposits; Yorkshire soils. Elementary considerations of water supply, road and building stones, etc.

Practical Work: Thursdays from 2 to 5 p.m. Examination of common minerals and rocks. Interpretation and use of Geological Maps (solid and drift).

Field Geology: One or more excursions will be arranged in the second term.

Field Course

For all students other than those taking Introductory Geology.

A course of practical instruction in the field will be given on alternate Saturdays during the session. Visits will be made to districts within reach of Leeds to study the geological features and also to map certain areas.

During the Easter Vacation one week will be devoted to the study of some special area not accessible in the ordinary course

DEPARTMENT OF ECONOMICS AND COMMERCE

The Department of Economics and Commerce offers opportunities for the study of industrial, commercial and social questions. Students who have specially entered in this department may qualify for the Ordinary or Honours Degree of Bachelor of Commerce after three years training. In addition to this special training, lectures are given within the Faculty of Arts itself, and students may proceed to a Degree in Arts after taking classes in social and economic subjects. The Honours course in Economics and Political Science offers a broad training to those who desire to take an Honours degree in Arts, while giving special attention to the study of social and industrial questions.

The department has thus been created to meet more than one need. In the first place, business education is still far less organised in England than in some other countries. Academic instruction cannot take the place of the numerous details on which success in business depends, but, on wider matters of policy, knowledge of detail cannot take the place of some training in industrial causation and tendencies.

In the second place, there is an increasing demand for knowledge on industrial relations and social affairs. Public and private enquiry have made available a great mass of ascertained facts regarding many aspects of the problem of work and wages in relation to social welfare. The Universities are the natural channel for the communication of this knowledge, which is otherwise apt to be shelved and neglected.

Finally, there is the need in every industrial centre for research and investigation into local industries and affairs. This requires trained faculties, a knowledge of the right questions to ask, and of how to use figures.

The Degree in Commerce

Appended are the Ordinances and Regulations for the degree in Commerce and the syllabus of the subjects comprising the commercial group in that degree. The following explanatory remarks may prove useful to the intending student.

There are obvious differences between a Commerce degree and a degree in Law, Medicine or Applied Science. In each of the latter the chief subjects are intimately connected with or essential preliminaries to professional practice. There are no subjects which have a similar bearing upon the whole field of commerce; nor is there any comparable clinical material upon which the student can work. Again, Commerce, in the sense in which it is employed for the purpose of this degree, does not merely mean buying and selling, but covers a wide range of organising and administrative functions, both in public departments and in private industry and commerce. The appropriate training for the many forms of economic activity for which a commerce degree has been established can only be provided, therefore, by offering a wide choice of subjects. Nevertheless, there is a group of subjects which should be studied by all who seek a career in the world of business and in some branches of public administration; and this group provides the nearest approach which seems possible towards the technical subjects in the other degrees to which reference has been made.

The degree course is thus made up of two parts.

The first part, which must be taken by all students, comprises Economics, Commercial Law, Accountancy and *either* Mathematics and Statistics *or* Geography.

The course in Economics extends over three years. In the first year it will consist of general economic principles; in the second it will include the organisation of industry, industrial relations, commerce and finance. In the third year the student will be required, among other things, to make a detailed study of a special problem to which further reference is made below. The prescribed course

in Commercial Law is taken during the first two years, and a course in Accountancy (including systems of costing and business administration) in the third year.

During the first two years, the student must have taken a prescribed course *either* (a) in Mathematics (first year) and Statistics (second year), *or* (b) in Geography.

The second part contains a large number of options which may be illustrated by a few typical cases. Students who aim at becoming textile manufacturers or woollen merchants for the wholesale trade will doubtless desire to devote part of their time to the study of textile manufacture, though not so much as is given to it by bleachers or dyers, whose training is mainly highly technical. In that event they will attend the Introductory course in Physics, and, in the first part, will choose Mathematics and Statistics, the study of the latter being important for the textile industry, the former being an essential introduction to statistics and allied to physics. The special economic subject to be studied in the third year would be the Economics of the Textile Industries. The full course would thus be constituted as follows :—

First year : Economics ; Commercial Law ; Mathematics, Course J ; Physics.

Second year : Economics ; Commercial Law ; Statistics ; Textile Manufacture.

Third year : Economics ; Accountancy ; Textile Manufacture.

The substitution of Engineering for Textile Manufacture, and the Economics of the Steel and Engineering Industries for the Economics of the Textile Industries would provide the appropriate degree course for the commercial and administrative branches of engineering.

As a further illustration may be considered the case of a student who intends to go abroad as foreign agent. He would naturally take Geography in the first part of the scheme and, in the second part, two languages, one studied for three years, the other for the first two years. The special economic subject to be studied in

the third year would be the organisation of foreign trade and the banking systems of selected countries. The full course might be constituted as follows:—

First year: Economics; Commercial Law; Geography; French; Spanish.

Second year: Economics; Commercial Law; Economic Geography; French; Spanish.

Third year: Economics; Accountancy; French (or Spanish).

It will thus be seen that the degree in Commerce approaches closely to a degree in Arts on one flank, and, on the other, to a degree in Applied Science. Many combinations are possible, all of which, however, include Economics, Commercial Law and Accountancy.

Degree of Bachelor of Commerce

- Ordinance 1. The degree in Commerce shall be that of—
Bachelor of Commerce (B.Com.)
2. The degree of Bachelor of Commerce shall be conferred as an Ordinary degree or as a degree with Honours.
3. All candidates for the degree of Bachelor of Commerce shall be required to have passed the Matriculation examination, and thereafter to have pursued approved courses of study for not less than three academic years.

Ordinary Degree of Bachelor of Commerce

4. The complete course of study for the Ordinary degree of Bachelor of Commerce shall be divided into two parts, called respectively the Intermediate course and the Final course.
5. Every candidate shall be required to pass two examinations, the Intermediate and the Final.
6. The Intermediate and Final examinations shall ordinarily be held in June. There shall also be a supplementary Intermediate examination in September, at which those candidates only may present themselves who have obtained the permission of the Senate.

7. Candidates who have failed at an Intermediate examination in June, and have obtained permission to present themselves at the following supplementary examination may be excused such part of the supplementary examination as the combined examination Committee, on report from the Examination Committee of the degree of Bachelor of Commerce, may determine.

8. All students shall be required, before presenting themselves for the Intermediate or Final examination, to furnish certificates testifying that they have regularly attended the prescribed courses of study, and performed the class exercises to the satisfaction of the Professor or Lecturers, in each of the subjects which they offer at the examination.

Intermediate Course and Examination

Every candidate shall be required, after passing the Matriculation examination, to attend, during not less than one academic year, approved courses of instruction and to pass an examination in each of the following subjects:—

- i. Economics.
- ii. Commercial Law.
- iii. One of the following groups (a) and (b):—
 - (a) (i.) Mathematics J, and (ii) Physics or Geology or Chemistry.
 - (b) (i) Mathematics J, or Geography, and (ii) *Two* of the following:—French, German, Spanish, Russian, English Literature, Modern History, Logic, Geography (if not selected under (i)), Mathematics J. (if not selected under (i)).

The examination in each modern foreign language shall include an oral examination.

Candidates who intend to select v. (f) in the Final course may substitute Mathematics R for Mathematics J in the Intermediate course.

Final Course and Examination

Every candidate shall be required to attend approved courses of instruction, and to pass an examination in each of the following subjects, studied either for two years as principal subjects or for one year as subsidiary subjects as hereinafter prescribed, viz. :—

- i. Economics : principal subject.
- ii. Commercial Law : subsidiary subject.
- iii. Accountancy : subsidiary subject.
- iv. Either Statistics or Economic Geography : subsidiary subject.
- v. *One of the following :—*
 - (a) Engineering (principal subject).
 - (b)¹ Textiles (principal subject).
 - (c) Mining (principal subject).
 - (d) Agriculture (principal subject).
 - (e) Printing* (principal subject).
 - (f) One principal *and* one subsidiary subject from the following lists :—

Principal subjects : French, German, Spanish, Russian, English, History, Philosophy, Law (including Constitutional and International).

Subsidiary subjects : French, German, Spanish, Russian, English, History, Philosophy, International Law, Constitutional Law, Mathematics, Geography.

Provided that no candidate shall be admitted to the Final courses (a) in Statistics unless he has taken Mathematics J or R in the Intermediate course ; (b) in Engineering or Textile manufacture unless he has taken Mathematics for Applied Science Students and Physics in the Intermediate course ; (c) in Mining, unless he has taken Mathematics for Applied Science students and Geology in the Intermediate course ; (d) in Agriculture, unless he has taken Chemistry in the Intermediate course.

¹ If this subject is selected, Textiles Introductory must be taken in the first year.

* A special prospectus relating to the degree in Commerce for Printing students may be obtained on application to the Registrar.

Provided further that no candidate shall be admitted to the final course in Printing in the third year unless he has (a) taken Mathematics for Applied Science students and Physics in the Intermediate course and Statistics as a subsidiary subject; (b) attended a prescribed course in Engineering during the second year and prescribed courses in Printing during the first two years.

The examination in each modern foreign language shall include an oral examination.

An English essay shall also form part of the examination.

- Candidates who have taken the course of study in a subsidiary subject in the first year of the Final course may present themselves at the end of that year for examination in such subject. The same subject may not be taken as a principal and subsidiary subject. The course in Accountancy may not be taken before the third year.

N.B.—These regulations do not entitle a candidate to the **Regulation** right of presenting himself for examination in a subject in which the University may, for the time being, be unable to provide instruction.

Degree of Bachelor of Commerce with Honours

1. Candidates for the degree of Bachelor of Commerce **Ordinance** with Honours shall, except as hereinafter stated, be required to furnish certificates of having attended courses of instruction approved by the University and extending over not less than three academic years in the Honours School hereinafter specified.

2. The Honours School referred to in this Ordinance shall be, unless otherwise stated, the Honours School of Economics as defined by the Regulations for the Degree of Bachelor of Commerce with Honours.

3. Every candidate for the degree of Bachelor of Commerce with Honours shall be required to present himself for examination at the end of the third or fourth academic year from the time when he has entered upon

one of the courses of instruction approved by the University for such degree unless he shall present a medical certificate of illness satisfactory to the Senate. This examination shall ordinarily be held in June of each year.

4. Candidates for the degree of Bachelor of Commerce with Honours may present themselves for examination in the Honours School on furnishing certificates of having pursued, to the satisfaction of the Senate, the courses required for such Honours School.

5. Candidates who have passed the Final examination for an ordinary degree of Bachelor of Commerce may, with the sanction of the Senate, and on furnishing certificates of having attended, during the academic year following such Final examination for the ordinary degree, the third year's, or during the two academic years following such Final examination, the second and third years' course approved by the University for the Honours School, present themselves for the degree of Bachelor of Commerce with Honours.

6. No candidate for a degree of Bachelor of Commerce with Honours shall be admitted more than once to examination in the Honours School.

7. Students who have passed the Final examination for the degree of Bachelor of Science with Honours, or the degree of Bachelor of Arts with Honours in any other School than that of Economic and Political Science, or the degree of Bachelor of Laws with Honours may be admitted to the Final examination for the degree of Bachelor of Commerce with Honours after the expiration of one or two years, on presenting certificates of having attended, during the period in question, courses approved by the University.

Provided that candidates shall not present themselves for the Final examination in the Honours School more than two academic years after the Final examination in Honours already passed by them, and also that no candidate shall be admitted to examination in the Honours School after a longer period than five years has elapsed since the date of his first entrance upon a prescribed course of study for an Honours School.

8. Names of candidates who have passed the examination for the degree of Bachelor of Commerce with Honours shall be published in three classes, each class being arranged in alphabetical order.

9. Candidates who have not acquitted themselves so as to deserve Honours may be excused the whole or such part of the examination for the Ordinary degree as the Combined Examination Committee may determine.

Honours Course and Examination

Candidates for the degree of Bachelor of Commerce with Honours in Economics shall be required to pursue courses of study, and to submit themselves to examination, as follows: Regulation

The course of study for the first academic year shall include the following subjects: (1) Economics, (2) Mathematics, J or R, (3) Modern History, (4) French or German or Spanish or Russian, and (5) one of the following:—Logic, English, Geography, Constitutional Law, International Law, Modern Language (if not already taken), Physics, Chemistry or Geology. An examination will be held in these subjects at the end of the first year, and must be passed before proceeding to further study.

(Candidates who have passed the above Intermediate examination, but are unable to continue their Honours course, may apply to the Senate for permission to proceed to the Final course and examination for the Ordinary degree of B.Com.)

Some modification of the First Year course and examination may be made, subject to the approval of the Board of the Faculty of Arts, in the case of students who have obtained a Higher School Certificate.

Attendance on the full course for the Intermediate Examination for the Ordinary degree of B.Com., may also be accepted by the Senate as the required attendance for the first year of the Honours Course.

During the second and third years candidates shall be required to attend approved courses in the subjects of the School of not less than five hours per week in each year.

They shall also be required to attend, during the second and third years, approved courses of lectures on other subjects amounting to not less than two hours a week in each year.

Examination

Essay, one paper.

Economics (including Industrial and Commercial Organisation and Industrial Relations), three papers.

Economic History, one paper.

Geography or Statistics, one paper.

Commercial Law, one paper.

A special economic subject, one paper.

In addition candidates shall be required to present a dissertation on some subject approved by the Board of the Faculty of Arts.

Candidates shall also be required to show in the examination some knowledge of at least one foreign language.

Diploma in Commerce

Candidates for the Diploma in Commerce must either be graduates of some University of the United Kingdom or have obtained one of the following diplomas granted by the University of Leeds:—Civil Engineering, Electrical Engineering, Gas Engineering, Mechanical Engineering, Mining Engineering, Colour Chemistry, Dyeing, Fuel and Metallurgy, Leather Manufacture, Textile Industries, Social Organisation and Public Service. Applicants who have obtained such diplomas of other Universities in the United Kingdom as shall be approved for this purpose by the Senate of the University of Leeds may also be admitted as candidates for the Diploma.

The course extends over one session, and consists of the following subjects:—The organisation of industry and commerce; industrial relations; business finance and administration; accountancy; commercial law, and *either* statistics *or* economic geography *or* some other subject approved by the Senate. The course may be

modified, with the approval of the Senate, to meet the special requirements of individual students. Candidates will be expected, before entering upon the course, to have studied the elementary principles of Economics. An examination in each subject will be held at the end of the course.

Ordinary Degree of B.A.

The Ordinary degree of B.A. can be taken with Economics as a Principal Subject at the Final Standard. *Ordinance*

Honours Degree of B.A.

Candidates for the degree of Bachelor of Arts with Honours in Economics and Political Science shall be required to pursue courses of study, and to submit themselves for examination, as follows:—

The course of study and the examinations for the first academic year shall normally be the same as for the Ordinary degree of Bachelor of Arts, provided that at least one of the following subjects must be included: (1) Economics; (2) Logic.

Some modification of the courses and examinations required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

During the second and third years candidates shall be required to attend approved courses in the subjects of the school of not less than five hours a week in each year.

They shall also be required to attend, during the second and third years, approved courses of lectures on subsidiary subjects, the number of lectures amounting to not less than two hours a week in each year.

Examination

Essay, one paper.

Principles of Economics, two papers.

Industrial Relations, one paper.

History of Economic Theory, one paper.

Economic History, one paper.

Political Theory, one paper.

Constitutional Law, one paper.

A special Economic subject, one paper.

In addition, candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.

Degree of Master of Commerce (M.Com.)

- Ordinance** 1. The degree of Master of Commerce may be conferred, on payment of the proper fee, and subject to the conditions laid down in *Articles* (2) (3) and (4) on :
- (a) Registered Bachelors of Commerce of the University who have graduated with Honours, after not less than *one* year from the date of their graduation ;
 - (b) Other registered graduates of the University and graduates of other approved universities, after not less than *two* years from the date of their graduation.
2. Candidates who are not registered Bachelors of Commerce of the University shall be required :
- (a) to satisfy the Senate that they are qualified to pursue advanced study or research within the field of Economics and Commerce ;
 - (b) to attend approved courses of study within the University for not less than *two* years ; but it shall be in the power of the Senate, on the recommendation of the Board of the Faculty of Arts, to excuse specially qualified graduates of the University from this attendance.
3. Every candidate, with the exception provided for under *Article* (4), shall present a thesis, satisfactory to the Senate, on a subject approved by the Board of the Faculty of Arts, embodying the results of his independent study or original research within the field of Economics and Commerce.
4. Registered Bachelors of Commerce of the University who have not graduated with Honours may be permitted or required, in place of the thesis prescribed under *Article* (3), to submit themselves for examination in a course or courses upon which instruction is given within the department of Economics and Commerce, and to present a dissertation satisfactory to the Senate on a subject approved by the Board of the Faculty of Arts.

1. Candidates who are not registered graduates of the University must become registered as students of the University. *Regulations*

2. Candidates who are not registered Bachelors of Commerce of the University shall be required :

(a) to pursue a course of advanced study or research under the supervision of the Head of the Department of Economics and Commerce ;

" (b) to give evidence to the Senate at the end of the first year of their period of study that their work has been satisfactory.

3. Candidates may be required to submit themselves for examination (written, or oral, or both) in the subject of their thesis (or dissertation).

Courses of Study

The following syllabus explains more in detail the nature of the various courses.

Economics

I. General Economics

The evolution of modern economic conditions. Modern industrial, commercial and social organisation. The national income. Value and distribution.

Tuesday and Thursday at 10 a.m.

FINAL COURSES

II (a). Financial and Commercial Organisation

Business Organisation and management ; Large and small businesses ; joint stock enterprise ; the trust movement. Land and Water Transport. Insurance. Currency and banking, the money market, stock exchange and foreign exchanges. The organisation of foreign trade.

Tuesday and Thursday at 11 a.m.

II (b). Public Finance and Administration

Public expenditure and revenue. Rates, taxes and public debts. The Budget. Relations of central and local administration. Local Rates. Grants in Aid. Municipal finance and administration. National and Municipal Industries.

Two hours a week at times to be arranged.

II (c). Social Science and Administration

The influence of industrial conditions on social life ; the problems of poverty, housing, sweating and unemployment. Some social aspects of industry. Employment of women and children. Schemes of industrial betterment. Industrial and social legislation.

Two hours a week at times to be arranged.

II (d). Economic History

A general course beginning with the Manor and ending with the Nineteenth Century, with special attention to a particular period. In connexion with this course Dr. Maud Sellers will lecture in the Spring and Summer terms on "Mediæval Industrial and Municipal Institutions."

Two hours a week at times to be arranged.

II (e). Industrial Relations

Methods of remuneration ; trade union organisation ; conciliation and arbitration ; joint industrial councils, works committees, etc. Personnel, Management and Industrial Psychology. Industrial fatigue. Trades Boards. Factory legislation. International Labour Organisation.

Tuesday and Thursday at 10 a.m.

II (f). Economic Theory

Two hours a week.

HONOURS AND M.A. COURSES

H1. Advanced Economic Theory

H2. History of Economic Thought

H3. Economic History : Special Period

This class will cover the general Economic History of the period 1485-1660, and will include the use of documents.

Two hours a week.

H4. Industrial and Financial Organisation

The nature and duties of the State and the basis of Citizenship.

Two hours a week at times to be arranged.

H5. Industrial Relations

H6. Political Theory

Special Courses

Students in the Economics department may attend other courses provided for students in the department of commerce and social organisation. Courses will normally be offered on The Theory of Statistics ; The interpretation of Social Statistics, Local Government, and The Social History of the XIXth century. When required special courses will be given on The Organisation of Foreign Trade ; Business Finance ; The Banking systems of the chief modern states ; and on the economics of the following industries : mining, engineering, iron and steel manufacture, textile manufacture, and transport by land and sea.

**DIPLOMA IN SOCIAL ORGANISATION
AND PUBLIC SERVICE**

The courses of study for the Diploma in Social Organisation are designed to provide specialised training

for students who are preparing to engage in social work, either voluntarily or in salaried positions.

As administrative social work becomes more standardised there is a marked tendency to demand of candidates for salaried posts a sound knowledge of economic and social conditions. Government departments, Municipal Authorities, progressive employers and others now realise that the well-trained administrator should see the interests and problems of life as a whole, and not in isolated sections. This may be observed, for example, in the Public Health Services and in the selection of Welfare Workers, Probation Officers, Relieving Officers, Juvenile Advisory Committee Officers, and the paid officials of social agencies.

The growth of the teaching of Civics or Citizenship also demands of the teachers some knowledge of social history, industrial conditions and the machinery of central and local government.

Efficient voluntary social work depends increasingly upon the accuracy with which members of voluntary bodies can conduct investigations, interpret evidence and statistics, and devise remedies appropriate to the problems presented. Councils of Social Service, Guilds of Help, Friendly Societies, Trade Unions, Co-operative Societies and the numerous clubs and religious and educational agencies, offer a very wide field to the trained social student.

Admission to the Course

Candidates for the Diploma should have passed the matriculation examination of the Joint Matriculation Board, or some equivalent examination. Non-matriculated candidates will be required to present evidence that their experience and education have been such as to enable them to profit by the course.

The course will begin in October in each year.

Courses of Study

The full course for the Diploma extends over two years, and consists of lectures in the University together with practical work under the direction of the Tutor in Practical Work.

First Year Lectures :

ECONOMICS	.. ..	Two hours a week.
INDUSTRIAL AND SOCIAL HISTORY	.. ..	One hour a week.
SOCIAL PSYCHOLOGY	.. ..	One hour a week.
LOCAL GOVERNMENT	.. ..	One hour a week.
PUBLIC HEALTH AND HYGIENE	.. ..	One hour a week.

Second Year Lectures :

SOCIAL SCIENCE AND AD- MINISTRATION (including Industrial Legislation)	Two hours a week.
SOCIAL ETHICS	.. .. One hour a week.
SOCIAL STATISTICS	.. .. One hour a week.
INDUSTRIAL RELATIONS*	.. .. Two hours a week.

Training of Hospital Almoners

Each candidate for the position of Hospital Almoner is required to take the Diploma in Social Organisation and Public Service before proceeding to the rest of her training.

Practical Work

In each year of the course the equivalent of two full days a week will be devoted to practical social work under the direction of the Tutor in Practical Work.

* Other subjects may be taken if they are more suitable for the particular career the candidate has in view.

Examinations

An examination will be held at the end of each year of the course. The Diploma will be awarded to students who have passed both first and second year examinations and have presented a satisfactory thesis on their practical work.

Separate Classes

Students who are unable to devote two years to the full Diploma course will be admitted by special arrangement to such of the classes as may suit their requirements on payment of the fees for the separate classes in addition to the Library fee.

THE DEPARTMENT OF LAW

The Law Department exists for the purpose of providing tuition in law for those desiring either to proceed to a degree in law, or to sit for the professional examinations necessary to qualify either as a solicitor or a barrister.

The position of a man who is about to become a solicitor may be summarised as follows:—

He must decide whether he wishes to take a degree or not. If he wishes to take a degree, he may follow one of the following courses:—

- (a) Read for a degree before entering into articles, and so secure two years exemption from articles.
- (b) Enter into articles without any exemption for the period of five years; read for a degree during the first three years; if he takes his degree, he will be exempt from the legal part of the Law Society's intermediate examination, and will have covered practically the whole of the ground required for the final examination of the Law Society.
- (c) Enter into articles with an exemption of one year due to having been placed in the first class of the Matriculation Examination in which he took Latin, as a subject.

If it is decided not to take a degree then the Law Student can attend the courses appropriate to the professional examinations, and so comply with the provisions of the Solicitors Act, 1922.

A detailed statement of the Ordinances and Regulations for the degrees in Law will be found upon subsequent pages.

The courses appropriate to the degree of LL.B. are set out first, and it is then indicated which will be of service to students for professional examinations only.

Courses for the degree of LL.B.

INTERMEDIATE COURSES—FIRST YEAR'S WORK.

1. *The Law and Custom of the English Constitution.*

MR. HARGREAVES.

One hour per week.

Time to be arranged.

2. *Elements of English Law.* Professor HUGHES.

Two hours per week.

Time to be arranged.

3. *Roman Law.* MR. HARGREAVES.

One hour per week.

Time to be arranged.

FINAL COURSES—SECOND AND THIRD YEARS' WORK.

1. *Property and Conveyancing.* MR. HAGGEN.

One hour per week for two sessions.

Time to be arranged.

2. *Equity including Partnership and Company Law.*

MR. HAGGEN.

Hours as for Property and Conveyancing.

Time to be arranged.

3. *Common Law I.*, including Contract, Tort, Bills of Exchange, Sale of Goods, Carriage, and kindred branches of Common Law. MR. HAGGEN.

Hours as for Property and Conveyancing.

Time to be arranged.

4. *Common Law II.* Criminal Law, Evidence, Procedure, including Bankruptcy. MR. HAGGEN.

Hours as for Property and Conveyancing.

Time to be arranged.

5. *Jurisprudence.* Professor HUGHES.

One hour per week for one session.

Time to be arranged.

The hours and dates for lectures will be fixed in such a way as to involve attendance at the University for two afternoons per week, with an additional hour for jurisprudence in the morning before one of the afternoons chosen for final courses.

Candidates who wish to obtain the degree of LL.B. with honours may do so by attending the above courses,

but will be set separate papers of a higher standard at the Final Examination.

Tuition Fees

(a) *Full Course* :—

Degree of LL.B. ..	£13 11s. per session (including Union Fee)
Final Examination of the Law Society.	£11 11s. per session.
Statutory Course for Cer- tificate under the Solicitor's Act, 1922.	£11 11s. for Full Course if taken during three consecutive terms. (An additional fee calculated at the Separate Subjects rate will be charged if the course is spread over a longer period than three consecu- tive terms.)

(b) *Separate Subjects* :—

For each Lecture hour per week.	£4 per session.
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NOTE :—(Applicable to Separate Subjects only.)

- (i.) When more than one lecture hour per week is attended in any *one class* the fee for each hour beyond the first will be £2 per session.
- (ii.) For two terms, three-quarters of the above amounts will be charged. For one term, half the above amounts will be charged.

(c) *Fees for Higher Degrees and for Examinations* :—

See General Regulations and Fees Pamphlet.

Examinations of the Law Society

Intermediate Examination : The classes on the Elements of English Law above-mentioned are directed towards an understanding of Stephen's Commentaries on the Laws of England, and are of a tutorial nature, suitable for students reading for the Intermediate Examination of the Law Society. An additional hour on Stephen's Commentaries is given on the morning of the

day arranged for the Elements of English Law. Sections of Stephen not relevant for the degree work are dealt with.

Final Examination The first four courses described amongst the final courses for the examination for the degree of LL.B. are suitable for students reading for the final examination of the Law Society.

A class is held for the purpose of reading Conflict of Laws, lectures to be given in alternate years with Jurisprudence.

Examinations of the Council of Legal Education

Students for the bar are asked to state their requirements to the Professor of Law.

Courses in Commercial Law

The Law Department conducts courses in Commercial Law for students studying for the Degree of Bachelor of Commerce. Men in occupations to whom these courses would be of service are invited to communicate with the Professor of Law.

Public International Law

A course of one hour per week is given.

Extra Mural Courses: York

Courses are given at York for students who are unable to travel to Leeds. Both the intermediate and final examinations of the Law Society are provided for by tutorial work on one day per week for three terms in the year. A special prospectus on this matter may be obtained on application to the Registrar of the University.

Solicitors Act 1922

Articled clerks who wish to comply with the provisions of this Statute may do so by attendance at any of the above courses or combination of them, either at Leeds, or York, in such way as to put in the number of attendances required by the regulations of the Law Society made in pursuance of the Statute. The circumstances in which articled clerks are placed are so varied that general advice is undesirable, and consultation by the individual with the Professor of Law is invited.

Railway Fares

The Yorkshire Board of Legal Studies will pay one-third of the 3rd Class Railway Fares of Articled Clerks coming from a distance to Leeds, to attend the Law Classes at the University. A pass should be taken on return fares paid as in each case is found to be most economical.

Applications for repayment of the amount expended should be sent in at the close of the session, addressed to the Treasurer, Herbert Denison, Esq., Permanent House, The Headrow, Leeds.

Exemptions by the Law Society consequent upon the passing of Examinations in the University

(a) The Matriculation certificate of the Joint Matriculation Board of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham is accepted by the Law Society in lieu of the Preliminary Examination.

(b) The same certificate, provided that the candidate is placed in the First Division of the Matriculation Examination, that all the subjects have been taken at one examination, and that one of them is Latin, exempts a student from one year of articles.

(c) Students who take the LL.B. degree before entering into articles are exempted from two years of service.

(d) Students who have passed the Joint Matriculation Examination, Latin being one of the subjects taken, or any Examination accepted as exempting therefrom, Latin being taken and who have passed the Intermediate LL.B. Examination, before entering into articles, are exempt from one year of service.

(e) Students who have passed the examination required for the LL.B. degree, whether before or after entering upon their articles, are exempt from the legal portion of the Law Society Intermediate Examination.

The Law Society require that certificates showing that these conditions have been satisfied should be produced before registering the articles of clerkship, if a student claims the exemption.

DEGREES IN LAW

1. The degrees in Law shall be :

Bachelor of Laws (LL.B.)
 Master of Laws (LL.M.)
 Doctor of Philosophy (Ph.D.)
 Doctor of Laws (LL.D.)

Degree of Bachelor of Laws

2. The degree of Bachelor of Laws shall be conferred either as an Ordinary degree or as a degree with Honours.

3. All candidates for the degree of Bachelor of Laws shall be required to have passed the Matriculation examination, except those who may have been exempted therefrom, and thereafter to have pursued approved courses of study for not less than three academic years; graduates of this University other than Law graduates, or approved graduates of any other University, may proceed to the Final Examination for the degree of Bachelor of Laws after pursuing approved courses of study in Law for not less than two years.

Ordinary Degree of Bachelor of Laws

4. The complete course of study for the Ordinary degree of Bachelor of Laws shall be divided into two parts, called respectively the Intermediate course and the Final course.

5. Every candidate shall be required to pass two examinations, the Intermediate and the Final.

6. The Intermediate and Final Examinations shall ordinarily be held in June of each year.

7. All candidates shall be required, before presenting themselves for the Intermediate or Final examination, to furnish certificates testifying that they have regularly attended the prescribed courses of study, and performed the class exercises to the satisfaction of the Professor or Lecturer, in each of the subjects which they offer at the examination. Some modification of the amount of

attendance required may, in exceptional cases, be made by the Vice-Chancellor, on the recommendation of the head of the department concerned.

Intermediate Course and Examination

8. Every candidate shall be required, after passing the Matriculation examination or after obtaining exemption therefrom, to attend during one academic year courses of instruction approved by the University, and to pass in each of the subjects of the course so approved.

Every candidate shall be required after passing the Matriculation Examination, or securing exemption therefrom, to attend during one academic year approved courses of study and to pass in each of the following subjects :—

- i. Constitutional Law.
- ii. Elements of English Law.
- iii. Roman Law.

Provided that for the course and examination in Elements of English Law there may be substituted, with the approval of the Senate, an equivalent course and examination in some other branch or branches of legal study (other than Roman Law or Constitutional Law as understood in these Regulations) or in some combination of such other branch or branches together with such part of the course in Elements of English Law as may be deemed desirable.

Intermediate Examination

Constitutional Law, one paper.
Elements of English Law, two papers.
Roman Law, one paper.

Final Course and Examination

9. Every candidate shall be required to attend during two academic years courses of study approved by the University, and to pass in each of the subjects of the course so approved.

Regulations No candidate shall be permitted to enter for the Final examination, or any part thereof, until he has passed the Intermediate examination.

Every candidate shall be required to attend during two academic years the following courses of study, and to pass in each of the subjects of the course:—

- i. Property, Real and Personal (including Conveyancing).
- ii. Equity (including Company Law).
- iii. Common Law (including Criminal Law and Bankruptcy).
- iv. Evidence and Procedure.
- v. Jurisprudence.

Provided that for the courses and examination in Property, Real and Personal, and in Equity, there may be substituted, with the approval of the Senate, equivalent courses and examination in some other branch or branches of legal study (other than Courses iii, iv and v above) or in some combination of such other branch or branches together with such part of the courses in Property, Real and Personal, and in Equity as may be deemed desirable.

Final Examination

Common Law, Evidence and Procedure, three papers.
Property, real and personal, and equity, three papers.
Jurisprudence, one paper.

Degree of Bachelor of Laws with Honours

Ordinance 1. Candidates for the degree of Bachelor of Laws with Honours shall, except as hereinafter stated, be required to furnish certificates of having attended courses of instruction approved by the University and extending over not less than three academic years in the Honours School of Law.

2. Every candidate for the degree of Bachelor of Laws with Honours shall be required to present himself for examination not later than the end of the third or fourth academic year from the time when he has entered upon

one of the courses of instruction approved by the University for such degree unless he shall present a medical certificate of illness satisfactory to the Senate. This examination shall ordinarily be held in June of each year.

3. Candidates who have passed the Final examination for an Ordinary degree of Bachelor of Laws may, with the sanction of the Senate, and on furnishing certificates of having attended, during the academic year following such Final examination for the Ordinary degree, the third year's course approved by the University for the Honours School of Law, present themselves for examination for the degree of Bachelor of Laws with Honours.

Provided that where the Ordinary degree of Bachelor of Laws was conferred prior to the existence of the Honours School of Law the certificate of attendance at the third year's course above-mentioned need not show that such attendance has immediately followed the passing of the Final examination for the Ordinary degree.

4. No candidate for a degree of Bachelor of Laws with Honours shall be admitted more than once to examination in the Honours School of Law, but students who have passed the Final examination in any of the other Honours Schools of the University may be admitted to the Final Examination in the Honours School of Law after the expiration of two years, on presenting certificates of having attended, during the period in question, courses approved by the University.

5. Names of candidates who have passed the examination for the degree of Bachelor of Laws with Honours shall be published in three classes, each class being arranged in alphabetical order.

6. Candidates who have not acquitted themselves so as to deserve Honours may be excused the whole or such part of the examination for the Ordinary degree as the Combined Examination Committee may determine.

Candidates for the degree of Bachelor of Laws with Honours shall be required to pursue courses of study and to submit themselves for examination as follows. *Regulations*

Intermediate Course and Examination

Every candidate shall be required after passing the Matriculation Examination, or securing exemption therefrom, to attend during one academic year approved courses of study and to pass in each of the subjects, as required for the Intermediate Course and Examination for the Ordinary degree of Bachelor of Laws.

Final Course and Examination

No candidate shall be permitted to enter for the Final examination or any part thereof until he has passed the Intermediate examination.

Every candidate shall be required to attend during two academic years courses of study and to submit himself for examination, according to the following regulations; that is to say, either:—

- (a) Candidates may attend courses and submit themselves for examination in the subjects approved for the Ordinary degree of Bachelor of Laws; *or*
- (b) Candidates may elect to pursue courses of study and to submit themselves for examination according to the following groups. They must take all the subjects in Group I, and one subject from each of Sections (i.) and (ii.) in Group II.

Group I

- i. Real and Personal Property (including Conveyancing).
- ii. Equity (excluding Company Law).
- iii. Contract and Tort.

Group II

- i. One subject chosen by the candidate for special treatment and development from the following branches of English Law—
 Conveyancing, Law and Practice.
 Commercial Law.
 Trusts and Settled Estates.
 Company and Partnership Law.
 Local Government Law.
 Any other branch of English Law may be suggested, and chosen by the candidate, with the approval of the Board of the Faculty of Arts.

- ii. One subject chosen by the candidate, from the following branches of legal study, or from allied branches of study—

Jurisprudence.

International Law.

The Law of England upon matters involving a foreign element (conflict of Laws).

Comparative Constitutional Law.

Industrial Law.

Political Science.

Public Finance.

Economics.

Roman Law.

Any other branch of legal or allied study may be suggested and chosen by the candidate with the approval of the Board of the Faculty of Arts.

N.B.—These Regulations do not entitle a candidate to the right of presenting himself for examination in a subject in which the University may for the time being be unable to provide instruction.

Honours Examination

- (a) For candidates who submit themselves for examination in the subjects approved for the ordinary degree, special honours papers will be set, the same in number and distribution as for the candidates for the Ordinary degree.
- (b) For candidates who submit themselves for examination under the alternative scheme, papers will be set as follows:—
- i. Real and Personal Property, one paper.
Equity, one paper.
Contract and Tort one paper.
 - ii. A general paper upon Common law, equity and property, one paper.
 - iii. The subject chosen from Group II.
 - i. in the above regulations, two papers.
 - iv. The subject chosen from Group II.
 - ii. in the above regulations, one paper

Degree of Master of Laws**I**

Ordinance 1. The degree of Master of Laws may be conferred, on payment of the proper fee, upon registered Bachelors of Laws, when of not less than one year's standing from the date of their graduation as Bachelors, subject to the conditions contained in the following paragraphs.

2. Bachelors of Laws who have graduated with Honours may proceed to the degree of Master of Laws on presenting a dissertation satisfactory to the Senate on a subject approved by the Board of the Faculty of Arts.

3. Bachelors of Laws who have obtained the Ordinary degree shall be required to pass an examination in a subject or group of subjects upon which instruction is given in the Department of Law, and to present a dissertation satisfactory to the Senate on a subject approved by the Board of the Faculty of Arts, or if they do not present a dissertation, to pass a more extended examination. In special cases it shall be in the power of the Senate, on the application of the candidate and on the special recommendation of the Board of the Faculty of Arts, to award the degree upon a dissertation only. Candidates wishing to apply for such remission must make application to the Board of the Faculty of Arts not later than the end of October preceding the examination. Regulations shall determine the subjects and groups of subjects in which the examination will be held. Certificates of attendance on courses of study in the University shall not be required.

4. All candidates who offer a dissertation either as sole test or in combination with other tests, may be called upon to present themselves for an examination—written, or oral, or both—in the theme of their dissertation.

5. The names of candidates who have passed the examination for the degree of Master of Laws shall be arranged in alphabetical order without distinction of classes.

II

Graduates in Law or persons who have passed the Final examination for a degree in Law, of other approved Universities shall, if they present evidence satisfactory to the Senate that they are qualified to pursue a course of advanced study or research, be permitted to enter the University and to become candidates for the degree of LL.M. without taking the LL.B. degree, after not less than two years of such advanced study or research.

Such candidates shall be required to fulfil the following conditions :—

- (a) To be registered as students of the University.
- (b) To pursue a course of advanced study or research under the supervision of the Head of the Department of Law.
- (c) To attend a course or courses of lectures at the University for at least one year, if required by the Professor of Law.
- (d) To pay a minimum fee (including Registration and Library fee) of four guineas per annum.

They shall be further required to give evidence to the Senate at the end of the first year of their period of study that their work has been satisfactory, and at the end of their second year they shall be required to present a dissertation, and to satisfy such further test if any as the Senate shall deem expedient. They will as a rule be called upon to present themselves for an examination, written, oral, or both, in the theme of their dissertation.

NOTE.—A Member of the University who graduated as Bachelor of Laws before the institution of the degree of LL.B. with Honours, may proceed to the degree of Master of Laws under the old Regulations.

1. Bachelors of Laws who have obtained the Ordinary Regulations degree shall be required *both*

- (a) To submit themselves for examination in *either* the Common Law, *or* the Law of Property, *or* Equity, *or* International Law, *or* some other approved branch of law, not less than one year

from the date of their graduation as Bachelors of Laws : *and*

- (b) To present a dissertation on a subject approved by the Board of the Faculty of Arts, not less than one year from the date of passing the above examination.

2. The subject selected for examination shall be related to the subject of dissertation, and the examination shall consist of two papers of Honours standard.

3. The dissertation shall be of the same standard as that required for Bachelors of Laws who have graduated with Honours.

4. In special cases it shall be in the power of the Senate on the recommendation of the Board of the Faculty of Arts to allow candidates to present the dissertation in the same academic year as they submit themselves for examination.

Degree of Doctor of Philosophy (Ph.D.)

Ordinance The Degree of Doctor of Philosophy (Ph.D.) is conferred, on payment of the proper fee, on persons who are registered graduates of the University of Leeds, or who have obtained at an approved University or Institution of University rank a degree or appropriate diploma awarded upon an approved course of study extending over not less than three years, or have passed the Final Examination for such a degree at an approved University, provided that in all cases the conditions laid down in the following paragraphs have been satisfied.

All Candidates for the Degree of Doctor of Philosophy are required to pursue in the University for at least two academic years an approved full-time course of advanced study and research, under the direction of the Head of the Department concerned or of a member of the University staff appointed by the Senate on his recommendation ;

provided that, after completion of the first year of the course, candidates may be permitted to devote

such periods as may be deemed advisable by the Senate to full-time study and research in other approved Universities or Institutions, while remaining under the direction of the University or of persons nominated by the University.

Before entering on the course of advanced study and research, candidates are required Regulations

- (a) To have attained the age of 21 years.
- (b) To submit to the Senate for its approval the course of advanced study and research proposed by them and to present evidence satisfactory to the Senate that they are qualified to undertake the proposed course.
- (c) To register as students of the University and to pay the prescribed fees for tuition.

On completing the course of advanced study and research candidates are required

- (a) To present a thesis on the subject of their advanced study and research, and to satisfy the examiners that it contains original work worthy of publication, and that it is of a sufficient standard of merit to qualify for the degree of Doctor of Philosophy.
- (b) To submit themselves for an oral examination on matters relevant to their thesis, and, if required, for a written examination and to satisfy the examiners in the examination as well as in the thesis presented.

The application of a candidate for admission to the course for the degree must give particulars of his educational career and qualifications as well as the subject of his proposed course of advanced study and research. The application should be addressed to the Clerk to the Senate.

NOTE.—A candidate is advised, before making application to the Clerk to the Senate, to consult the Head of the Department which is concerned with the subject which he proposes to study.

Towards the completion of his course the candidate, giving if possible three months' notice to the Clerk to the Senate, must make application to be examined and must submit, as soon as possible afterwards, at least one copy of his thesis, which should be accompanied by a short abstract. The copy of the thesis will be retained by the University.

Degree of Doctor of Laws

Ordinance 1. The degree of Doctor of Laws shall be conferred by the University upon registered Masters of Laws or Doctors of Philosophy of the University who shall be deemed by the Senate, after considering a report from one or more of the Boards of Faculties, to have distinguished themselves by special research or learning.

Provided that the Senate may, in such cases as it shall think fit, after considering a report from one or more of the Boards of Faculties, also require candidates to pass such an examination as it may from time to time determine.

2. A Master of Laws or a Doctor of Philosophy of the University may make application for the degree of Doctor of Laws in the sixth or any subsequent year from the date of his admission to the Bachelor's degree.

3. Such application shall be made in writing to the Registrar, and shall contain a full statement of the grounds on which the claim for the degree is based, together with one or more copies of any thesis, whether in print or in manuscript, which the applicant may desire to submit in support of the application.

4. If the application be approved by the Senate, the degree may be conferred at the expiration of not less than six years from the date of admission to the Bachelor's degree.

N.B.—The latest date of entry and of payment of fees will be MARCH 2nd. The LL.M. examination and the LL.D. examination if required, will be held in June

DEPARTMENTS OF CIVIL, MECHANICAL AND ELECTRICAL ENGINEERING

The work of these Departments is intended to provide a systematic training in the application of scientific principles to engineering purposes, and is not intended in any way to supersede the usual routine of engineering works and offices. An apprenticeship or pupilage in such works is essential for every Engineering student.

The scientific training at the University must be regarded as a means of acquiring the principles that underlie the art of Engineering, and the training in the Works as necessary for acquiring the art itself.

It is desirable that all students, whether taking up Civil, Mechanical or Electrical Engineering, should have at least one year's practical experience in Engineering Works before taking up the University course. This, however, is not essential and students may be admitted direct from school.

Though the Engineering courses are designed primarily to suit students intending to be Civil or Mechanical or Electrical Engineers, the subjects in the Civil Engineering course are such as should be studied by Mining Engineers, and by Architects, and the course prescribed for Mechanical Engineers, or parts of it, would be found of direct practical utility to students who are afterwards to be engaged in any occupations connected with manufactures.

It is hoped that all Engineering students will join the Students' Engineering Society and the Officers' Training Corps.

COURSES OF STUDY

The basis upon which the courses have been organised may be briefly stated as follows :—

In the first year of their studies all Engineering students will concentrate mainly upon the pure sciences, viz., Mathematics, Physics and Chemistry.

In the Second Year they will continue with their Mathematical studies, and, at the same time, will be placed in a position to acquire a broad perspective view of all the Applied Sciences bearing upon Engineering practice to which their First Year studies are fundamental. No specialisation is attempted in the First and Second Years. All students, whether Civil, Mechanical, or Electrical, pursue the same courses.

In the Third Year specialisation under the three branches of Civil, Mechanical and Electrical is provided. During this year in addition to their specialised Engineering studies, the Civil Engineering students will pursue a course in Geology, and the Mechanical and Electrical Engineering students a course in Fuel and Metallurgy. All the students will also take a short course in Applied Economics.

The Courses are set out in detail below. Students pursuing them may prepare for the Honours or Ordinary Degree of B.Sc. or the Diploma of the University, in Civil, Mechanical or Electrical Engineering.

Diploma Students who pursue the courses set out for the Honours Degree may be awarded a Diploma with Distinction provided they reach a sufficiently high standard.

**Courses for the Honours Degree of B.Sc. in
Civil Engineering, Mechanical Engineering
and Electrical Engineering**

First Year :

Mathematics for Applied Science Students.
Physics Introductory.
Physics Laboratory.
Chemistry Introductory.
Chemistry Laboratory.
General Engineering I.

Second Year :**General Engineering II., comprising—**

Strength of Materials	IIA (1).
Structures	IIA (2).
Heat Engines	IIB.
Theory of Machines	IIC.
Hydraulics	IID.
*Surveying.. ..	II E.
Electrical Engineering	II F.
Engineering Laboratory.	
Drawing and Design (Mech.) ..	II x.
Mathematics F3 ^a and F4 (full courses).	

Third Year Civil Engineering :**Civil Engineering (Hons.), comprising—**

Strength of Materials	IIIA (1).
Theory of Structures	IIIA (2).
*Surveying.. ..	IIIE.
Public Works Engineering ..	IIIG.
Structural Design	IIIV.
Engineering Laboratory.	

and one course selected from the following :—

Heat Engines	IIIB.
Theory of Machines	IIIC.
Hydraulics	IIID.
Theory of Electrical Machines	IIIF.
Electrical Transmission ..	IIIH.

† Geology.

Applied Economics.

Third Year Mechanical Engineering :**Mechanical Engineering (Hons.), comprising—**

Strength of Materials	IIIA (1).
Heat Engines	IIIB.
Theory of Machines	IIIC.
Hydraulics	IIID.
Engineering Laboratory.	
Drawing and Design	IIIX.

* Easter Vacation Course in addition.

† Field work plus Vacation Course (optional) in addition.

and one course selected from the following :-

Theory of Structures ..	IIIA (2).
*Surveying	IIIE.
Theory of Electrical Machines	IIIF.
Public Works Engineering ..	IIIG.
Electrical Transmission ..	IIIH.

Fuel and Metallurgy.

Applied Economics.

Third Year Electrical Engineering :

Electrical Engineering (Hons.), comprising—

Theory of Machines	IIIC.
Theory of Electrical Machines	IIIF.
Electrical Transmission.. ..	IIIH.
Electrical Drawing and Design	IIIZ.
Electrical Engineering Laboratory.	
Mechanical Engineering Laboratory.	

and two courses selected from the following :

Strength of Materials ..	IIIA (1).
Theory of Structures ..	IIIA (2).
Heat Engines	IIIB.
Hydraulics	IIID.
*Surveying	IIIE.
Public Works Engineering ..	IIIG.

Fuel and Metallurgy.

Applied Economics.

**Courses for the Ordinary Degree of B.Sc. in
Civil, Mechanical and Electrical Engineering**

First Year :

Mathematics for Applied Science Students.
Physics Introductory.
Physics Laboratory.
Chemistry Introductory.
Chemistry Laboratory.
General Engineering I.

*Easter Vacation Course in addition.

Second Year :

General Engineering II., comprising—

Strength of Materials	IIA (1).
Structures	IIA (2).
Heat Engines	IIB.
Theory of Machines	IIC.
Hydraulics	IID.
*Surveying	IIE.
Electrical Engineering ..	IIF.
Engineering Laboratory.	
Drawing and Design (Mechanical)	IIx.
Mathematics F3 and F4 (short courses).	

Third Year Civil Engineering :

Civil Engineering (Ordinary), comprising—

Theory of Structures	IIIA (2).
*Surveying	IIIE.
Public Works Engineering ..	IIIG.
Structural Design	IIIV.
Engineering Laboratory.	

and one course selected from the following :—

Strength of Materials ..	IIIA (1).
Heat Engines	IIIB.
Theory of Machines	IIIC.
Hydraulics	IIID.
Theory of Electrical Machines	IIIF.
Electrical Transmission ..	IIIH.

†Geology.

Applied Economics.

Third Year Mechanical Engineering :

Mechanical Engineering (Ordinary), comprising—

Strength of Materials	IIIA (1).
Heat Engines	IIIB.
Theory of Machines	IIIC.
Drawing and Design	IIIX.
Engineering Laboratory.	

*Easter Vacation Course in addition. •

†Field Work plus Vacation Course (optional) in addition.

and one course selected from the following :—

Theory of Structures..	.. IIIA (2).
Hydraulics	IIID.
Surveying	IIIE.
Theory of Electrical Machines	IIIF.
Public Works Engineering	IIIG.
Electrical Transmission	IIIH.

Fuel and Metallurgy.

Applied Economics.

Third Year Electrical Engineering :

Electrical Engineering (Ordinary), comprising—

Theory of Machines ..	.. IIIC.
Theory of Electrical Machines	IIIF.
Electrical Drawing and Design..	IIIZ.
Electrical Engineering Laboratory.	
Mechanical Engineering Laboratory.	

and two courses selected from the following :—

Strength of Materials ..	.. IIIA (1)
Theory of Structures..	.. IIIA (2)
Heat Engines ..	.. IIIB.
Hydraulics ..	.. IIID.
*Surveying ..	.. IIIE.
Public Works Engineering ..	.. IIIG.
Electrical Transmission ..	.. IIIH.

Fuel and Metallurgy.

Applied Economics.

DEGREE AND DIPLOMA EXAMINATIONS

Students are recommended to take the B.Sc. Degree Course in Civil or Mechanical or Electrical Engineering (Ordinary or Honours). Students intending to read for a degree must pass or obtain exemption from, the Matriculation Examination conducted by a Joint Board of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham, before taking the Engineering Course.

Candidates for Diplomas are required :—

- (a) To give satisfactory attendance in the subjects which constitute the Honours or Ordinary degree course.

* Easter Vacation Course in addition.

- (b) To present themselves for any Departmental examinations that may be held in the subjects constituting their course of study.
- (c) To make formal entry for the Final Diploma Examination, on the prescribed form, not later than March 1st of the last session of the course, and to pay at the same time the prescribed examination fee.
- (d) To pass the examinations held at the end of their course.

The record of students during their course may be taken into account in awarding the Diploma.

A student producing evidence of adequate previous scientific training may, upon application to the Senate, be exempted from a portion of the normal course and may qualify for the diploma upon a shortened period of study.

A Diploma may be granted to a student reading for a degree upon the results of the degree examination, provided a satisfactory standard is attained.

The subjects of examination are detailed below.

Honours Degree of B.Sc. in Civil Engineering, Mechanical Engineering and Electrical Engineering

First Year Examination.

Mathematics for Applied Science Students.
Physics Introductory.
Chemistry Introductory.
General Engineering I.

Final Examination.

CIVIL ENGINEERING—

- ‡General Engineering II.
- ‡Mathematics F3 and F4 (full courses).

Civil Engineering (Hons.), *comprising—*

Strength of Materials	IIIA (1).
Theory of Structures	IIIA (2).
Surveying.. ..	IIIE.
Public Works Engineering ..	IIIG.
Laboratory, two days.	•

‡Taken at the end of second year.

and one of the following :—

/ Heat Engines	III B.
Theory of Machines	III C.
Hydraulics	III D.
Theory of Electrical Machines	III F.
Electrical Transmission ..	III H.

Geology.

Applied Economics.

MECHANICAL ENGINEERING

† General Engineering II

† Mathematics F3 and F4 (full courses).

Mechanical Engineering (Hons.), comprising—

Strength of Materials	III A (1).
Heat Engines	III B.
Theory of Machines	III C.
Hydraulics	III D.
Laboratory, two days	

and one of the following :—

Theory of Structures	III A (2).
Surveying	III E.
Theory of Electrical Machines	III F.
Public Works Engineering ..	III G.
Electrical Transmission ..	III H.

Fuel and Metallurgy.

Applied Economics.

ELECTRICAL ENGINEERING—

† General Engineering II.

† Mathematics F3 and F4 (full courses).

Electrical Engineering (Hons.), comprising—

Theory of Machines	III C.
Theory of Electrical Machines	III F.
Electrical Transmission ..	III H.
Electrical Design	III I.
Electrical Engineering Laboratory (two days).	

and two of the following :—

Strength of Materials	III A (1).
Theory of Structures	III A (2).
Heat Engines	III B.
Hydraulics	III D.
Surveying	III E.
Public Works Engineering	III G.

Fuel and Metallurgy.

Applied Economics.

† Taken at the end of second year.

**Ordinary Degree of B.Sc. in Civil Engineering,
Mechanical Engineering and Electrical Engineering**

First Year Examination.

Mathematics for Applied Science Students.

Physics Introductory.

Chemistry Introductory.

General Engineering I.

Final Examination.

CIVIL ENGINEERING—

‡General Engineering II.

‡Mathematics F₃ and F₄ (short courses).

Civil Engineering (Ord.), *comprising—*

Theory of Structures .. IIIA (2).

Surveying IIIE.

Public Works Engineering .. IIIG.

Laboratory, one day.

and one of the following :—

Strength of Materials .. IIIA (1).

Heat Engines IIIB.

Theory of Machines IIIC.

Hydraulics IIID.

Theory of Electrical Machines IIIF.

Electrical Transmission .. IIIH.

Geology.

Applied Economics.

MECHANICAL ENGINEERING—

‡General Engineering II.

‡Mathematics F₃ and F₄ (short courses).

Mechanical Engineering (Ord.), *comprising—*

Strength of Materials .. IIIA (1).

Heat Engines IIIB.

Theory of Machines IIIC.

Laboratory, one day.

and one of the following :—

Theory of Structures .. IIIA (2).

Hydraulics IIID.

Surveying IIIE.

Theory of Electrical Machines IIIF.

Public Works Engineering IIIG.

Electrical Transmission .. IIIH.

Fuel and Metallurgy.

Applied Economics. •

‡Taken at the end of second year.

ELECTRICAL ENGINEERING—

‡General Engineering II.

‡Mathematics F₄ and F₄ (short courses).Electrical Engineering (Ord.), *comprising—*

Theory of Machines IIIc.

Theory of Electrical Machines IIIf.

Electrical Design IIIz.

Electrical Engineering Laboratory, one day
and two of the following :—

Strength of Materials .. IIIA (1).

Theory of Structures .. IIIA (2).

Heat Engines IIIB.

Hydraulics IIID.

Surveying IIIE.

Public Works Engineering IIIG.

Electrical Transmission .. IIIH.

Fuel and Metallurgy.

Applied Economics.

The Institution of Civil Engineers

All Engineering students, whether following Civil, Mechanical or Electrical Engineering, should aim at ultimately becoming Members of the Institution of Civil Engineers.

The first step is to become a Student of the Institution. Application should be made to the Secretary of the Institution for the regulations relating to the admission of students.

All Engineering Students of this University who have passed the Matriculation Examination or its equivalent, and in addition have passed the June examinations at the end of their First Year Engineering Course, are eligible for election as Students of the Institution. Those who have not passed the Matriculation should take the Preliminary Examination of the Institution, particulars in regard to which may be obtained from the Secretary.

Only those students who have attended their various classes to the satisfaction of the Professors and Lecturers concerned and have done reasonably well in their class examinations will be proposed for admission to the Institution. After admission they are entitled to attend the Meetings and Excursions of the Local Association of the Institution of Civil Engineers and to receive two volumes of Proceedings per annum. Miller Scholarships and Prizes, value from £10 to £120, are awarded by the Institution for papers read by students at either the Local Associations or at Headquarters.

Students who have obtained the Honours or Ordinary B.Sc. Degree in Civil, Mechanical or Electrical Engineering will not be required to take Sections A and B of the Associate Membership examination of the Institution. All candidates however, must pass Section C of that Examination.

Students who have not obtained a degree must take Sections A and B of the Associate Membership Examinations as well as Section C.

For the subjects to be taken the Institution's syllabus should be consulted.

Prior to election as Associate Member, candidates must fulfil the requirements as regards practical training and experience in accordance with the schemes set out in the Bye-Laws of the Institution.

The Institution of Mechanical Engineers

All Mechanical Engineering Students should also aim at ultimately becoming Members of the Institution of Mechanical Engineers. The first step is to become a Student Member of the Institution. Full particulars as to procedure for enrolment in this grade may be obtained from the Secretary of the Institution of Mechanical Engineers, Storey's Gate, St. James's Park, London, S.W.1.

Students who have passed the Matriculation Examination of the Northern Universities under certain conditions are exempt from the Studentship Examination of the Institution. A complete list of the exempting examinations may be obtained from the Secretary of the Institution.

The Ordinary and Honours Degrees of B.Sc. in Engineering of this University exempt students from Sections A and B of the Associate Membership Examination which is a necessary qualification for the higher grades of Graduate and Associate Member.

All candidates, however, must take Section C of that Examination unless they hold a Degree in Commerce.

There is a Local Branch of the Institution of Mechanical Engineers which promotes visits to Engineering establishments and provides lectures on Engineering topics. The meetings and visits are open to all classes of members.

Marine Engineers

The Engineering Department of this University is recognised by the Marine Department of the Board of Trade as an institution in which candidates for Marine Engineering certificates can obtain a portion of their training.

The Institution of Electrical Engineers

All Electrical Engineering students should aim at ultimately becoming members of the Institution of Electrical Engineers.

The first step is to become a Student Member of the Institution. Full particulars as to the procedure for enrolment in this grade may be obtained from the Secretary of the 'Institution' of Electrical Engineers, Savoy Place, Victoria Embankment, London, W.C.2.

All Electrical Engineering students of this University are eligible for election as Students of the Institution.

The Ordinary and Honours Degrees of B.Sc. in Civil, Electrical, Mechanical and Mining Engineering, and the Diploma in Electrical Engineering, exempt students from the Associate Membership Examination, which is a necessary qualification for the higher grade of Associate Member.

There is a local Centre of the Institution. Papers accepted by the Institution are read and discussed at the meetings of the Local Centre. The meetings are open to all classes of members.

There is in addition a Local Students' Section, controlled by a Chairman, Secretary and Committee, elected by the students themselves, which selects its own papers and arranges its own visits to engineering establishments.

SYLLABUS OF COURSES

General Engineering I

(Engineering Lecture Theatre first and second terms)
(Electrical Lecture Theatre third term)

First and Second Terms: Mondays and Fridays at 10 a.m.

Materials; Boilers; Steam engines; Steam turbines; Internal combustion engines; Air compressors and motors; Refrigerators; Hydraulic machinery; Transmission of power.

Third Term: Mondays and Fridays at 10 a.m.

Fundamental principles; Ohm's law and 'Kirchoff's laws applied; Elementary principles of electric machinery, measuring instruments; Secondary batteries.

(Drawing Office).

First, Second and Third Terms: Thursday afternoons.
Geometrical and machine drawing.

General Engineering II**IIA (1). Strength of Materials****(Engineering Lecture Theatre)***First, Second and Third Terms*: Tuesdays at 10 a.m.

Stress, strain and elasticity; Mechanical properties and tests; Suddenly-applied loads; Bending moments and shearing forces; Theory of bending and stress distribution in beams; Columns and struts; Torsion and combined stresses in shafts and helical springs; Thin cylinders; Failure and fatigue of metals.

IIA (2). Theory of Structures**(Engineering Lecture Theatre)***Second Term*. Tuesday at 12 noon.

Fixed load forces in (a) plate web girders (b) braced web girders of various types. Design in detail of a plate girder. Application of reciprocal figures to the calculation of forces in roof trusses. Design of a simple roof truss. Theory of the funicular polygon applied to simple arches and suspension bridges.

IIB. Heat Engines**(Engineering Lecture Theatre)***First, Second and Third Terms*: Tuesdays at 11 a.m.*Third Term*: Wednesdays at 11 a.m.

Thermodynamics; Boilers; Theory of the steam engine; Theory of the internal combustion engine; Steam Turbines and Condensers.

IIC. Theory of Machines**(Engineering Lecture Theatre)***First and Second Terms*: Wednesdays at 11 a.m.

Kinematics of machines; Belts; Gears; Friction of dry and lubricated surfaces; Roller and ball bearings; Flywheels; Governors; Balancing.

II D. Hydraulics

(Electrical Engineering Lecture Theatre).

First and Second Terms: Thursdays at 11 a.m.

Hydrostatic pressure ; Floating bodies.

Principles of Hydraulics ; Discharge from orifices, notches and weirs ; Flow in pipes and channels ; Measurement of stream discharge ; Fluid friction ; Transmission of power by fluids ; Water hammer ; Impact of water ; Theory and operating characteristics of turbines and pumps.

II E. Surveying

(Electrical Engineering Lecture Theatre)

Second and Third Terms : Thursdays at 12 noon.

Chain surveying ; Surveying instruments ; Traverse surveying ; Measurement of heights and levelling.

II F. Electrical Engineering

(Electrical Engineering Theatre)

First, Second and Third Terms : Thursdays at 10 a.m.

First and Third Terms : Tuesdays at 12 noon.

Principles of direct current circuits ; Principles of alternating current circuits ; Alternating current measurement. Principles of alternating current machines ; Principles of direct current machines.

II X. Machine Drawing and Design

(Drawing Office)

First, Second and Third Terms : Mondays and Fridays, afternoons.

The design of bearings ; Couplings ; Clutches ; Spur, bevel and spiral gearings, etc. and Engine details.

General Engineering IIs

This Course has been arranged for students from the Departments of Fuel and Mining. It consists of Courses in Strength of Materials, Heat Engines, Hydraulics and Electrical Engineering, together with Laboratory and Drawing Office Work. The class hours are as under :—

Lecture.—Tuesdays, Wednesdays, Thursdays, Fridays at 9 a.m.

Laboratory.—Mondays and Tuesdays, 2-5.

Drawing Office.—Fridays, 2-5.

Special Course on Winding Engines

Third Term : Fridays 2-5.

Engineering III

IIIA (1). Strength of Materials

(Electrical Lecture Theatre first and second terms).

(Engineering Lecture Theatre third term).

First, Second and Third Terms : Fridays at 10 a.m.

Compound stresses and strains; Principal stresses in beams; Unsymmetrical bending; Slope and deflection of beams; Built-in and continuous beams; Shear in beams; Advanced theory of struts and torsion; Thick cylinders and spheres; Rotation of rings and discs; Hooks; Flat plates; Transverse vibrations; Stress analysis and corrosion-fatigue; Developments in testing.

IIIA (2). Theory of Structures

(Engineering Lecture Theatre)

First, Second and Third Terms : Mondays and Thursdays at 12 noon.

Statically Determinate Structures; Plate girders and Braced girders under moving loads; Curved girders; Arches; Suspension bridges; Statically Indeterminate Structures; Masonry Structures; Reinforced concrete.

IIIB. Theory of Heat Engines

(Engineering Lecture Theatre)

First, Second and Third Terms : Thursdays at 11 a.m. and Wednesdays at 9 a.m.

Advanced theory of steam engines ; Steam turbines ; Internal combustion engines ; Transmission of power by compressed air ; Mechanical production of cold.

IIIc. Theory of Machines
(Engineering Lecture Theatre)

First, Second and Third Terms : Mondays at 11 a.m.

Dynamics of the steam engine ; Connecting rods and coupling rods ; Balancing ; Flywheels ; Governors ; Velocity and acceleration diagrams ; Theory of Film Lubrication ; Vibration and Vibrographs ; Whirling of shafts ; Torsional Oscillations of Crank shafts ; Gyroscopes.

IIId. Hydraulics
(Engineering Lecture Theatre)

First, Second and Third Terms : Wednesdays at 10 a.m.

Advanced theory of discharge from orifices, weirs and notches ; Viscous resistance of fluids ; Non-uniform flow in channels ; Jet propulsion of ships ; Hydraulic machinery ; Turbines ; Surge tank ; Centrifugal pumps ; Reciprocating pumps ; Tidal power ; Advanced theory of water hammer ; Applications of the principle of dynamical similarity.

IIIe. Surveying
(Engineering Lecture Theatre).

First, Second and Third Terms : Fridays at 9 a.m.

Advanced theory of surveying instruments ; Base line measurement ; Triangulation ; Plane table surveying ; Hydrographic surveying ; Tacheometry ; Setting out of lines and levels of works including railway curves ; Earthwork calculations ; Application of astronomy to surveying.

IIIf. Theory of Electrical Machines
(Electrical Engineering Theatre)

First, Second and Third Terms : Mondays at 10 a.m.

Theory of transformers, alternators, synchronous and asynchronous motors and converters.

IIIg. Public Works Engineering (Engineering Lecture Theatre)

First, Second and Third Terms : Thursdays at 9 a.m.

Railways.—Location of Railways and Design in regard to gradients; Cuttings and embankments; Design of railway stations and theory of points and crossings.

Roads.—History of road construction and design; Modern road surfaces for heavy traffic.

Water Supply.—Principles of water supply from streams, rivers and underground sources; Reservoirs, and embankments, bore-holes, wells and adits.

Sanitary Engineering.—Drainage and sewerage of rural and urban districts. Purification and disposal of sewage.

IIIh. Transmission (Electrical Engineering Theatre)

First, Second and Third Terms : Wednesdays at 11 a.m. and Thursdays at 10 a.m.

Short circuits in Networks; Theory of Alternating current transmission; travelling waves; Telephonic transmission.

IIIi. Drawing and Design (Mechanical)

First, Second and Third Terms : Either Monday afternoons, Tuesday mornings and Tuesday and Thursday afternoons or Tuesday and Thursday afternoons.

The production of a complete design and working drawings for a machine tool or some form of prime mover or pump.

IIIj. Structural Design (including Graphics)

First, Second and Third Terms : Tuesday and Thursday afternoons.

Graphical determination of maximum and minimum forces in structures subject to moving loads; Design of girders; Roof trusses and other steel structures.

Graphical treatment of arches ; Suspension bridges ; Retaining walls ; dams, etc.

IIIz. Electrical Design and Drawing

(Electrical Engineering Lecture Theatre and Drawing Office)

First, Second and Third Terms :

Lectures : Mondays at 9 a.m. and Fridays at 11 a.m.

Drawing Office : Tuesday or Thursday afternoons.

Lecture Course.—Methods of design of direct current and alternating current machinery.

Drawing.—Design and preparation of drawings of a direct current machine.

Engineering Laboratories

Experimental work in connection with the various classes will be conducted in the Engineering Laboratories throughout the course.

Engineering II : Tuesday and Thursday afternoons.

Engineering III : Monday afternoons, Tuesday mornings and Friday afternoons.

TIME TABLES

First Year

	9 to 10	10 to 11.	11 to 12.	12 to 1.	2 to 5.
MON. ..	Maths. J.	Gen. Engrg. I.	—	Chemistry.	—
TUES. ..	Maths. J.	Physics.	Physics Laboratory.		Chemistry Laboratory.
WED. ..	Maths. J.	Chemistry Laboratory.		Chemistry.	—
THURS. ..	—	Physics.	Physics Laboratory.		Drawing Office.
FRI. ..	Maths. J.	Gen. Engrg. I.	—	Chemistry	—
SAT. ..	—	Physics.	—	—	—

Second Year

	9 to 10.	10 to 11.	11 to 12.	12 to 1.	2 to 5.
MON. ..	—	Maths.	—	Maths.	Drawing.
TUES. ..	—	IIA 1 (1, 2, 3).	IIb (1, 2, 3).	IIc (1, 3). IIA 2 (2).	Laboratory.
WED. ..	—	Maths.	IIc (1, 2). IIb (3).	Maths.	—
THURS. ..	—	IIc (1, 2, 3)	IID (1, 2)	IIe (2, 3).	Laboratory.
FRI. ..	—	Maths.	—	Maths.	Drawing.

Third Year

	9 to 10.	10 to 11.	11 to 12.	12 to 1.	2 to 5.
MON. ..	IIIz.	IIIc.	IIId. Geol. I.	IIIA (2).	Laboratory or Drawing.
TUES. ..	Laboratory or Drawing.			Fuel.	Drawing.
WED. ..	IIIb.	IIId.	Geol. I. IIId.	Econ.	—
THURS. ..	IIId.	IIId.	IIId.	IIIA (2).	Drawing.
FRI. ..	IIId.	IIIA (1).	IIId. Geol. I.	Met.	Laboratory.

DEPARTMENT OF MINING

**Assisted by the Drapers' Company of the City of London, and
by the West Yorkshire Coal Owners' Association, and the
West Riding County Council**

The University, which is situated in the heart of a mining district possessing some of the deepest and best equipped of modern English collieries, enjoys the cordial support of the owners, agents and managers of mines, who give the Department every facility for instructing its students. As the University is moreover provided with excellent Physical, Chemical, Metallurgical, Geological, and Engineering (Mechanical and Electrical) laboratories, it has every facility for giving its students both a theoretical and practical training in the science and art of Mining.

The work of the Department is carried on under the immediate direction of the Head of the Department, acting in conjunction with the Mining Advisory Committee, composed of prominent mining engineers and coal owners of the district.

The courses have been arranged to meet the requirements of those who intend to become :—

1. Colliery Agents or Managers.
2. Metal mine Managers.
3. Mine Surveyors.
4. Mining Metallurgists.

The Degree Courses are primarily intended for the systematic training of students who can devote at least three years to the study of the scientific principles underlying the practice of the various industries for which they are preparing themselves. They are not intended to supersede the usual "apprenticeship" in a mine or works, but rather as a preparatory or supplementary course to such a practical training, which actual experience at a mine or works can alone adequately supply. Special facilities are provided for postgraduate research work both in the laboratories of the Department and in mines and works outside, and every help is afforded to graduates who, on passing into the industry, find themselves confronted with problems

which can be advantageously worked out in conjunction with a well equipped scientific laboratory. Provision is also made to meet the requirements of duly qualified students who wish to take advantage of part of the regular courses of instruction, whilst graduates of other Universities will be admitted as research students.

COURSES OF STUDY

There are eight distinct courses of study arranged in this Department to meet the requirements of different classes of students, viz. :—

- I. A four years' course leading to the degree with Honours in Mining.
- II. A four years' course, the fourth year being devoted to approved research, leading to the degree with Honours in Mining.
- III. A three years' course leading to the degree of B.Sc. in Mining.
- IV. A three years' course qualifying for the Diploma in Mining.
- V. Course on Mine Surveying.
- VI. A three years' course leading to the degree of B.Sc. in Mining and Metallurgy.
- VII. A three years' course qualifying for the Diploma in Mining and Metallurgy.
- VIII. A course on "The Preparation of Coal for the Market."

Students entering for the degree course are required to have passed (or obtained exemption from) the Matriculation examination conducted by the Joint Board of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham.*

Colliery Managers' Certificates of Competency under the Coal Mines Act, 1911

Graduation as B.Sc. in Mining Engineering, or the possession of the Diploma in Mining Engineering of the University of Leeds, has been recognised by the Board of

*All inquiries regarding the Matriculation examination, including applications for exemption, should be addressed to the Secretary to the Board, the Joint Matriculation Board, 315, Oxford Road, Manchester, from whom also a complete syllabus of the examination may be obtained.

Trade as equivalent to two years' experience at a mine for the purposes of the Colliery Managers' Certificate under the Coal Mines Act, 1911. Further information may be obtained on application to the Secretary to the Board for Mining Examinations, Mines Department, Dean Stanley Street, Westminster, London, S.W.1.

The University of Leeds is an institution approved by the Board of Trade in respect of its Degree of B.Sc. in Mining and its Diploma in Mining.

Surveyors' Certificates under the Coal Mines Act, 1911

The University of Leeds is one of the Institutions approved by the Board of Trade for the purpose of training students for Surveyors' Certificates under the Coal Mines Order.

The following courses at the University have been approved to enable candidates to obtain exemption from two of the four years practical experience required :—

1. Ordinary B.Sc. Degree Course in General Mining.
2. Diploma Course in Mining.
3. The Course in Mine Surveying.

I. Honours B.Sc. Degree Course in General Mining (Four Years' Course)*

This course of instruction is arranged for students who desire to qualify themselves as Mining Engineers, Surveyors, or Assayers, and also for those who intend, in the future, to take charge of mining and prospecting operations in the colonies or foreign countries. Students are required to devote the vacations to obtaining practical experience in mines, and they should call upon the Head of the Department, immediately before the Christmas vacation of their first year at the University,* to obtain advice regarding the necessary arrangements.

During the first year of the Degree Course the student will normally attend classes and take examinations in Mathematics, Physics, Chemistry, Engineering, and Mining.

*Graduation as B.Sc. on the Mining course prescribed has been recognised by the Board of Trade as equivalent to two years' experience at a mine for the purposes of the Colliery Manager's Certificate.

During the second year he will take courses in Engineering (Mechanical and Electrical) and Mathematics.

During the third year he will attend courses in Geology, Fuel and Metallurgy, Surveying and Mining.

In the fourth year he will devote his attention mainly to Mining and Geology.

The four years' course will thus include a systematic training in the Science and Applied Science Subjects which are essential to the study of Mining.

The student will qualify for the Degree by attendance upon the courses detailed below, and passing the corresponding examinations; he will also be required to translate satisfactorily a passage from a modern language.

Syllabus

<i>First Year.</i>	Lectures.	Laboratory
Mathematics J.	4 ..	—
Chemistry Intro.	3 (1 tutorial)	5
Physics Intro.	3 ..	4
General Engineering I ..	2 ..	3
Mining	1 ..	—
<i>Second Year.</i>		
Mathematics F3, F4 ..	6 ..	12
Engineering II	7 ..	—
Engineering Laboratory and Drawing	— ..	—
<i>Third Year.</i>		
Geology Intro.	3 ..	—
Geology Laboratory	— ..	4
Mining Lectures	3 ..	—
Mining Laboratory	— ..	12
Metallurgy	2 ..	—
Fuel Laboratory and Assaying ..	— ..	3
Engineering IIIc	1 ..	—
<i>Fourth Year.</i>		
Mining	8 ..	—
Mining Laboratory	— ..	3
Geology F1	3 ..	—
Geology Laboratory	— ..	6
Surveying Drawing	— ..	3
Mineralogy	1 ..	—
Economics for Miners	1 ..	—

II. A Four Years' Course

The fourth year being devoted to approved research, leading to the degree with Honours in Mining

This course is designed to meet the needs of those students, who during the course of their University career, develop to such an extent that they can be considered to be of Honours standard.

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III. Ordinary Degree Course

During the first year of the Degree Course the student will normally attend classes and take examinations in Mathematics, Physics, Chemistry, Engineering, and Mining.

During the second year he will take courses in Engineering (Mechanical and Electrical), Geology, Mine Surveying, Fuel and Mining Metallurgy.

During his third year he will mainly devote his attention to Mining, including ore dressing and laboratory work, Mine Surveying and Assaying. He is also advised to attend the special courses in Industrial practice which are arranged from time to time.

The three years' course will thus include systematic training in Mathematics, Physics, Chemistry, Engineering and Geology in addition to the study of the special branch of Applied Science, namely Mining.

The Student will qualify for the B.Sc. degree by attendance upon the courses detailed below, and passing the corresponding examinations; he will also be required to translate satisfactorily a passage from a modern language.

Syllabus

<i>First Year.</i>		Lectures.		Laboratory.
Mathematics J	..	4	..	1
Chemistry Intro.	..	3 (and 1 tutorial)		6
Physics	..	3	..	3
General Engineering I *	..	2	..	3
Mining General	..	1	..	-

Second Year.

Engineering IIs	..	4	..	9
Geology Intro.	..	3	..	3
Fuel and Metallurgy		2	..	3 (Fuel)
Surveying	.. ..	1	..	3

Third Year.

Mineralogy	.. ..	1	..	—
Surveying	.. ..	2	..	3
Industrial Economics	..	1	..	—
Mining	.. ..	9	..	11

**Special Lecture Courses to be taken during Second
and Third Years**

In addition to the above lectures students are advised to attend during either the second or third years any special lectures given by outside lecturers on subjects ancillary to Mining, such as by-product coking processes, refractory materials, mining law, power plant testing, etc.

IV. Diploma Course in Mining Engineering* (Three Years' Course)

This course is arranged for those who intend to devote their attention to Coal Mining at home, and who; at the same time, desire to obtain a liberal training in the scientific principles underlying their profession, but for some reason are unable to take the B.Sc. Degree Course.

Candidates for the Diploma in Mining Engineering are required :—

I. During the Course—

- (a) To attend the same course as candidates for the Ordinary B.Sc. Degree in Mining.
- (b) To present themselves for any Departmental examinations that may be held in the subjects forming any part of their course of study. The record of students at their Departmental examinations will be taken into account in deciding the results of the Diploma examination.

*The possession of the Leeds University Diploma in Mining Engineering has been recognised by the Board of Trade as equivalent to two years' experience at a mine for the purposes of the Colliery Manager's Certificate.

- (c) To make formal entry, on the prescribed form, not later than March 1st of the last session of the course, and to pay at the same time the prescribed examination fee.
- (d) To obtain four months' experience at a mine during the vacations, unless the candidate shows to the satisfaction of the Head of the Department that he has had adequate previous experience at mines before entering on the course.

II. At the end of the Course—

- (a) To reach a satisfactory standard in any Final examination which may be set. In the subject of Mining a Diploma student takes for his Final examination the same Final Principal Mining papers as are set for the Ordinary degree of B.Sc.
- (b) To translate into English a passage of French or German relating to the principal subject of the Diploma Course. A foreign student who can show that he has received a good general education will be exempted from this language test.

III. A Diploma may be granted upon the degree course provided that the subjects studied for the degree include those prescribed for the Diploma, and that the other conditions are complied with.

A student producing evidence of adequate previous scientific or practical training may, upon application to the Senate, be exempted from a portion of the normal course and may qualify for the Diploma upon a shortened period of study.

V. Course on Mine Surveying

This includes the courses in Mine Surveying, Office Work, and Field and Underground Work in Surveying, particulars of which are given in subsequent pages.

To meet the convenience of external students, all lectures and practical instruction in surveying are given on one day only, Thursday.

To meet the case of external students whose knowledge of Mathematics is below degree standard, a special preliminary course consisting of one lecture per week, together with Office Work, will be given on Mondays.

VI. Degree Course in Mining and Metallurgy

This course of instruction is arranged for students who desire to specialise in the Preparation of Minerals for the market and the Extraction of Metals from their Ores.

It is so arranged that the First and Second Years are similar to the First and Second Years of the Mining B.Sc. course, while the third year consists of a careful blending of Assaying, Geology, Metallurgy—in particular the Extraction of Metals—and Mining.

The course will include systematic training in Mathematics, Physics, Chemistry, Engineering and Geology, in addition to the study of the special branches of Applied Science, namely Assaying, Metallurgy and Mining.

The student will qualify for the B.Sc. degree by attendance upon the courses detailed below, and by passing the corresponding examinations: he will also be required to translate satisfactorily a passage from a modern language.

1st Year :—	Subject.				Hours per week
	Mathematics for Applied Science students				4
	Physics Introductory	..	..	..	3
	Physics Laboratory	..	..	..	3
	Chemistry Introductory	..	..	..	3
	Chemistry Laboratory	..	..	..	6
	General Engineering	..	..	..	5
	General Mining	..	..	..	1
2nd Year :—					
	General Engineering IIs	..	..	..	13
	Geology Introductory	..	..	..	6
	Surveying F.5	..	..	..	5
	Fuel (1 hour lecture, 3 hours laboratory)	..	..	..	4
	Non-ferrous Metallurgy X.II.	..	..	..	1
	Applied Economics	..	..	..	1

3rd Year :—

Ferrous Metallurgy VIII	1
Mining F.1, F.2	4
Non-ferrous Metallurgy IX	1
Dressing of Minerals, F.4	1
Geology (Mineralogy)	1
Dressing of Minerals, Assaying and Metallurgy Laboratories	14
Geology Laboratory	3

VII. Diploma Course in Mining and Metallurgy

Candidates for this Diploma will attend the course set out above and must satisfy the requirements *mutatis mutandis* for the Diploma in Mining as given in previous pages.

VIII. Course on the Preparation of Coal for the Market

This course is arranged for those who are at present engaged, or intend to be engaged in the preparation of coal for the market and the sale of the finished product. It consists of one lecture per week dealing with the analysis of coal and the various methods employed in the cleaning of coal. The lecture course will be supplemented by a laboratory course, which will include practical analyses of coal, the preparation of washability curves and tests with coal cleaning appliances.

LECTURE COURSES

Mining F₁, F₂, F₃, F_{3a} and F₈

F₁
 Preliminary Geology
 Prospecting and Boring
 Ownership of Minerals
 Breaking Ground and Blasting
 Sinking

F₂
 Supports
 Methods of Working
 Winding

F₃
 Ventilation
 Haulage
 Pumping
 Lighting

F_{3a}
 Transmission of Power
 Coal Cutters and Conveyors
 Explosions and Coal Dust
 Spontaneous Combustion
 Rescue Apparatus
 Outbursts of Gas, Construction
 of Dams

F₈
 Efficiency of Mining Machinery
 Housing Schemes
 Leases
 Hot and Deep Mines
 Health and Hygiene

Preparation of Minerals and Coal F₄

A course of one lecture a week will be given during the Session on Fridays.

The syllabus will include:—

(a) *Ore Dressing*.—General principles, hand-dressing, comminution systems, sizing, water classification, water concentration, flotation concentration, magnetic, electrostatic, pneumatic and centrifugal separation. Ore dressing plants, flow-sheets, control of operations.

(b) *Coal Cleaning*.—Screening and sizing. Coal washing, basal principles, modern methods.

(i) Appliances using horizontal continuous water currents.

(ii) Appliances using vertical continuous water currents.

(iii) Combinations of (i) & (ii).

(iv) Jigging appliances.

(v) Appliances using mechanical impulses

(vi) Flotation processes.

Dry cleaning methods. Extraction of dust. Control of operations. Selection of a cleaning plant. Washability curves.

Lectures will be supplemented by practical laboratory work in both ore dressing and coal cleaning.

Mine Surveying F5, F6 and F7

During the session a course of two lectures per week will be given every Thursday.

Course F5

Introduction and general remarks on the aims and objects of surveying and mine surveying.

Principles underlying the methods of linear and angular measurements used by the mine surveyor.

Accessories, devices, parts and attachments common to many surveying instruments. Consideration of their uses, objects, causes of failure, design, improvement, testing, and adjustment.

Instruments used for the direct measurement of length; accuracy attainable, use, testing, and adjustment.

Instruments used for the measurement of angles; use, testing, and adjustment.

Instruments depending on the earth's magnetism and instruments for recording the continual changes in the direction of the magnetic meridian; their testing, use and adjustment.

Levelling instruments and instruments used for determining the relative position of points vertically with regard to one another or to a given datum.

Mine surveying methods, work and problems.

Care of instruments

Course F6

Errors in observed data, their amount, influence, and elimination.

Fundamental considerations concerning the form and size of the earth together with the consideration of geographical and astronomical relations, as far as these affect the work of the surveyor and mine surveyor.

Determination of the direction of the astronomical and magnetic meridians.

Connection of surface and underground surveys by various methods, their relative accuracy and suitability in various cases.

Tacheometry, plane table work.

Setting out railway connections, railway sidings, curves, gradients, roadways, levels, drifts, headgears, engine-foundations, cuttings, embankments, pipe-lines, and engineering work generally.

Office work; calculations from observed data connected with survey work, the checking and adjustment of errors and data, the graphical representation of data on plans and sections, the use and limitations of graphical records, calculation and determination of areas, volumes; preparation and reproduction of plans, sections, &c.; Ordnance Survey publications, their construction and use.

Course F7

Plotting of triangulation surveys and solution of surveying problems.

PRACTICAL WORK

Through the kindness of the local Coal Owners and Colliery Managers, arrangements have been made for the instruction of students at mines in the neighbourhood, not only in underground surveying and in the connection of underground and surface surveys, but also in general Mining work. The equipment of the department has therefore been designed to serve three purposes :

- (a) To supplement the general training received by the student in the other departments of the University, and direct it to Mining applications.
- (b) To provide apparatus and instruments for the investigation of problems at the mines, and for testing the consumption of power and general efficiency of haulage, winding, pumping, ventilating, and coal washing plants.
- (c) To establish conditions and provide appliances which are not to be met with in the neighbouring mines, as for example, in the equipment for the study of Ore Dressing, and in the provision of chambers and galleries for experimental work with safety lamps under various conditions.

The equipment therefore embraces the following :

For Investigations and Tests at Mines.

Apparatus necessary for

- Air compressor and compressed air transmission tests.
- Complete boiler trials.
- Complete ventilation tests.
- Pump efficiency tests
- Steam engine tests.
- Sampling and analysis of mine gases, fuels, etc.
- Etc.

For Laboratory Work.

• The following apparatus is provided :

- Air compressor and metering devices.
- Apparatus for analysis of mine air.
- Apparatus for analysis of coal and mine dusts.
- Apparatus for coal washing tests, including froth flotation.
- Balances for assay work.
- Bomb and other calorimeters.
- Centrifugal pump.
- Experimental fans and gallery, with various modern forms of manometers and air meters.
- Furnaces for assay work.
- Hygrometers.
- Kata thermometers.
- Microscopes.
- Ore dressing plant, including large Blake Marsden crusher, rolls 3-head Californian stamp battery, ball mill, elevator, screens, jigs, classifiers, sand tables, frames, slime table, magnetic separator, flotation units, vanning shovels, etc.
- Photometric bench and photometers.
- Mine rescue apparatus.
- Rock drills.
- Safety lamps and gas testing chambers.
- Westphal balance.
- Etc.

For Surveying.

The apparatus includes :

- Hand instruments for prospecting and rough surveying including box sextant, Abney level, prismatic compass, Brunton's Mine Transit, &c.
- Chains, tapes, steel bands, standard steel band.
- Miners' dials, with sliding centre and with three tripod outfit.
- Mining Theodolites, with removable targets.
- Plane Table.
- Levels, including precise level. Levelling Staves. Ranging Poles, &c.

Transit instrument for connection of underground and surface surveys.

Shaft-Plumbing outfit for the same.

A Calculating Machine. Fuller's Slide Rule. Computing Scale.

An Observatory has been established by the University and contains an 18 in. equatorially mounted reflector, $4\frac{1}{2}$ in. transit instrument, astronomical clock, chronograph, and a series of meteorological instruments.

Astronomical work in connection with surveying may be done by students at the Observatory.

Laboratory Work

The laboratory Course extending over the last two years, includes the following :

Analysis of mine atmospheres, flue gases, etc.

Assaying of ore and metallurgical products.

Calorimetry.

Coal Washing Tests.

Commercial analysis of fuel.

Examination of mine dusts.

Fan efficiency tests running (1) singly, (2) in series, and (3) in parallel.

Measurement of air flow.

Photometry.

Practical methods of mine gas detection.

Practical work in ore dressing, including tests on the efficiency of the various appliances used.

Practice in use of various forms of rescue apparatus.

Pyrometry.

Testing of air compressors: transmission of compressed air; air consumption of rock drills.

The laboratory instruction is supplemented by testing the efficiencies of boilers, fans, air-compressors, etc., at collieries.

Office Work

The work in the Drawing Office will include the following:

1. Calculations and practical exercises connected with work and problems in mine surveying.
2. The preparation and reproduction of mine plans and sections.

3. The drawing and design of mining machinery and plants and mine structures.

The Office Work will be based upon the lectures on Mining Engineering and Mine Surveying given during the session.

Every student will be held responsible for the instruments, apparatus or machinery with which he is working, and will be required to make good any damage caused by him. A deposit of 10s. 6d. will be required from which the cost of stationery supplied will be deducted. The balance will be returned in the event of no damage being done to instruments, apparatus or machinery, but the student's liability is not limited to the amount of the deposit.

In the case of occasional students and of students taking additional or extra work in the Laboratory or in Surveying, the Fees will depend on the time spent on such work.

Field and Underground Work in Surveying

During the session, at times to be arranged, instruction will be given in Field Work and Underground Surveying. Students will be required to go through a systematic course of work in the following :—

1. The use of surveying instruments.
2. Determination of the constants of instruments.
3. Errors of instruments; their elimination and adjustment.
4. Methods of securing the degree of accuracy necessary in particular kinds of work.
5. Adjustment of observations.
6. Astronomical observations for azimuth.
7. The survey of the surface of a mineral property including reconnaissance, triangulation, traversing, levelling, tacheometry, and detail work.
8. The survey of the underground excavations of a mineral property, including traversing and detail work.
9. The connection of surface and underground surveys.
10. Curve-ranging and setting-out work in general

At the end of the course, students will be required to produce evidence of having carried out surveying work on the surface and underground at a mine. Arrangements will be made whereby such work may be carried out on the surface and underground at a neighbouring mine during the vacations. Incidental expenses for the carriage, storing, loan or insurance of instruments may be liquidated by a charge on each student not exceeding 10s. Any balance remaining after settling accounts will be returned to students.

Mining Excursions

During the session excursions will be made to mines and works where mining machinery is manufactured. The object of these excursions will be to give students an insight into practical methods and mining practice generally.

University Mining Society

The membership of this Society includes both present and past students. It forms one of the most attractive features of the department, its principal function being to arrange for the reading of papers on mining subjects by acknowledged experts. All papers read during the season are published in the Society's own journal.

Colloquium

During their final year students are given valuable training in presenting papers on mining subjects for discussion among themselves.

Departmental Library

Apart from the main University Library where every authoritative book on all technical subjects is obtainable, there is now a Departmental Library, which is always kept up to date in mining literature. All the principal mining journals and periodicals published in this country, America, South Africa, France and Germany are also accessible to students.

William Cooke & Company Scholarship

This Scholarship, of the annual value of £21, instituted in 1906 by Messrs William Cooke & Co., of Sheffield, is at present in abeyance.

DEPARTMENT OF COAL GAS AND FUEL INDUSTRIES

WITH
METALLURGY

This department of the University was established in 1907 under the name of Department of Fuel and Metallurgy, and was the first of its kind in the British Universities. The buildings now occupied were erected and equipped in the year following out of funds provided by the West Yorkshire Coal-owners, supplemented by a special donation of £1,000 by Messrs. George Bray & Co. Ltd. At the death of the late Sir George Livesey in 1910, a fund was raised by the Institution of Gas Engineers to provide a memorial to him, and this was applied to the endowment of the Chair filled by the Head of the Department. The work of the Department is carried out with the help of an Advisory Committee known as the Coal Gas and Fuel Industries (Livesey Professorship) Committee. Through the generosity of Mr. Henry Woodall, the department has since been enlarged by the donation of an experimental gas plant which will form a permanent memorial to the late Sir Corbet Woodall. Several private firms have cooperated in providing parts of the plant which is specially designed for experimental work. In 1929, the accommodation was considerably extended.

Courses of Study

The courses of study in this department have been drawn up to meet the requirements of students who are preparing for responsible positions in the Fuel and Metallurgical industries.

The courses in Gas Engineering and the Technology of Fuel will deal chiefly with the manufacture and distribution of coal gas, by-product coking processes, the production and application of gaseous fuels for heating, lighting and power purposes and the properties and uses of fuels in general.

The metallurgical courses will deal with general methods for the treatment of ores, the extraction of metals, the construction and control of furnaces, with the production of cast iron, wrought iron and steel, and with the microstructure,

physical properties, and heat treatment of steel and other industrial alloys.

A course in the manufacture, properties and uses of Refractory Materials is given to all students in the department.

B.Sc. Course

Students who can devote three years to attendance at the University are strongly recommended to take the B.Sc. degree course, either in Gas Engineering or in Fuel and Metallurgy. Before commencing the degree course, however, students must pass or obtain exemption from the Matriculation examination, conducted by the Joint Matriculation Board of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham. A special examination will be held to meet the cases of those who have been engaged in Commerce and Industry for at least three years and have reached the age of nineteen years. (See the Syllabus of the Joint Matriculation Board obtainable from the Secretary, 315, Oxford Road, Manchester).

During the first year of the degree course the student will normally attend classes and take examinations in Mathematics, Physics, Chemistry, Fuel and Engineering. The student will, during his second year, continue the study of Chemistry, and will also take courses in Mechanical and Electrical Engineering, the Properties of Gases, and Fuel and Metallurgy, supplemented by work in the Fuel and Metallurgical laboratories. During the third year the student will mainly devote his attention to his special subject (*i.e.*, Gas Engineering, or Fuel and Metallurgy), but may also attend courses in Organic Chemistry, Colour Chemistry, Civil Engineering, Applied Economics and Metallurgy, etc. In the second and third year the student will attend the special courses on industrial practice which are arranged from time to time. The three years' course will thus include systematic training in Mathematics, Physics, Chemistry, General Engineering and Mechanical Drawing in addition to the study of the special branch of Applied Science (Gas Engineering or Fuel and Metallurgy). The student will qualify for the B.Sc. degree by attending the courses detailed below and passing the corresponding examinations.

I. Ordinary B.Sc. Degree Course in (i) Gas Engineering and (ii) Fuel and Metallurgy

All students will take the same course in their first year after matriculation, as follows :—

	Hours per week
Mathematics for Applied Science students ...	4
Physics, Introductory	3
Physics Laboratory	3
Chemistry, Introductory	3
Chemistry Laboratory	10½
Engineering I (2 hrs. lectures, 3 hrs. drawing)	5
Fuel I	1

The courses during the second and third years will be somewhat differentiated, according to the respective needs of gas engineers and metallurgists, as follows :—

Second Year Course

<i>All students</i> must take the following :—	Hours per week
Chemistry F2 (or as recommended) ...	3
Engineering (including Electrical) II ...	4
Fuel II (1st and 2nd terms)	1
Fuel IIa (1st and 2nd terms). . . .	1
Chemistry Laboratory, or Fuel and Metallurgical Laboratory } .	15
Engineering Laboratory	3

Metallurgical students will also attend in addition to the above :—

Metallurgy VIII (General)	1
Metallurgy IX (Non-Ferrous) ...	1

Third Year Course

Gas Engineering students must attend :—

Fuel III	1
Fuel IIIa	1
Fuel and Metallurgical Laboratory ...	22
Fuel and Metallurgical Colloquium ...	1

and may also attend courses chosen in consultation with the Head of the Department from the following: **Organic**

Chemistry F3; Colour Chemistry IV, Colloid Chemistry, Civil Engineering, Applied Economics, German and Metallurgy Introductory.

Metallurgical students must attend :—

	Hours per week.
Fuel III	1
Metallurgy X	2
Metallurgy XI	1
Metallurgy XII	1
Fuel and Metallurgical Laboratory	22
Fuel and Metallurgical Colloquium	1

Special Lecture Courses to be taken during the second or third years

In addition to the above lectures, students must also attend, during either the second or third year, the special lectures given in the department by outside lecturers in the following or similar subjects:—*

METALLURGICAL STUDENTS	GAS ENGINEERING STUDENTS
By-Product Coking Processes	By-Product Coking Processes
Refractory Materials	Manufacture of Coal Gas
	Refractory Materials
	Principles of Gas Distribution

II. Honours B.Sc. Course

Honours in Gas Engineering or Fuel and Metallurgy will be awarded to candidates who, having obtained the Ordinary degree, with either Gas Engineering or Fuel and Metallurgy as a principal subject, and being recommended as suitable to proceed with an Honours course, shall have spent one year in research or advanced study, or in the preparation of a thesis on some industrial process, to the satisfaction of the examiners, attendance at the University during this fourth year not being compulsory.

A degree student in Gas Engineering or Fuel and Metallurgy who with the approval of the Senate carries out research work and submits a thesis upon it, and who also satisfies the conditions for the pass degree, may be awarded an Honours degree at the end of the third year.

* This list is subject to variation, either by substitution or addition, according to the arrangements for special lecture courses which may be in vogue during any particular session or sessions.

III. Ph.D. Course

The Degree of Ph.D. will be awarded to graduates of this and other approved Universities who complete a course of advanced study and research extending over two years in the Department, and also satisfy the other conditions laid down for this Degree.

IV. Diplomas and Degree Courses for Post-Graduate Students

(a) A Diploma in either (i) Gas Engineering or (ii) Fuel and Metallurgy will be awarded to graduates of this or some approved University who, having graduated with Chemistry, Engineering, or Metallurgy as a principal subject, shall have attended for at least one year an approved course of lectures and laboratory work, and have passed an examination thereon. Students taking this special Diploma course must put in a full attendance at the University for at least one year.

Honours in Gas Engineering or Fuel and Metallurgy may also be conferred upon candidates who, having graduated in Science at this or an approved University, with Chemistry or Engineering as a principal subject, shall have subsequently (1) completed the course and passed the examination required for the diploma in Gas Engineering or Fuel and Metallurgy; and (2) spent an additional year in research in the department, to the satisfaction of the examiners.

Diplomas and Diploma Courses

Diplomas in (1) GAS ENGINEERING:

(2) FUEL AND METALLURGY:

Candidates for either of the above Diplomas are required:—

I. *During the Course*—

- (a) To give satisfactory attendance upon the subjects which form any part of the course of study.
- (b) To present themselves for any Departmental examinations that may be held in the subjects forming part of their course of study. The record of students at their Departmental exam-

inations will be taken into account in deciding the results of the Diploma examination.

- (c) To make formal entry, on the prescribed form, not later than March 1st of the last session of the course, and to pay at the same time the prescribed examination fee.

II. *At the end of the Course—*

- (a) To reach a satisfactory standard in any final examination which may be set.
- (b) To translate into English a passage of French or German technical literature. A foreign student who can show that he has received a good general education will be exempted from this language test.

III. A Diploma may be granted upon a degree course provided that the subjects studied for the degree include those prescribed for the Diploma, and that the other conditions are complied with. In such case, if the candidate is a graduate of this University, the fee for the Diploma is reduced to £1.

A student producing evidence of adequate previous scientific or practical training, may, upon application to the Senate, be exempted from a portion of the normal course and may qualify for the Diploma upon a shortened period of study.

The University Diploma in Gas Engineering or Fuel and Metallurgy, will be granted to candidates who have taken one of the courses following, to the satisfaction of the Head of the Department. These courses are arranged for Gas Engineers and Metallurgists who, while wishing to secure a certificate of successful study, cannot for any reason take the B.Sc. degree:—

- (a) a three years' course, the same as for the B.Sc. degree.
- (b) a two years' course for students exceptionally prepared in general science.
- (c) a two years' course for students exceptionally prepared in technical subjects.
- (d) a four years' course to be arranged for students serving an apprenticeship or its equivalent in Gas Engineering or Metallurgy. This course might

occupy three days per week or equivalent time for the first year, and at least two and a half days per week or its equivalent in the three succeeding years. A works' report in this case might be submitted for consideration in applying for the Diploma.

(a), (b), (c) and (d) would lead up to the same Diploma.

There will be a final examination for the diploma which will be the same as that in the principal subjects of the final examination for the degree of B.Sc. in Gas Engineering or Fuel and Metallurgy. The Fee for this examination is £6.

Fuel and Metallurgy as "Introductory Subject"

- Students offering Fuel and Metallurgy as an Introductory subject for the Ordinary Degree of B.Sc. in Pure Science will be required to take courses Fuel I (Introductory) and Metallurgy VIII (Introductory), together with work in the laboratories for three hours per week during the session.

SYLLABUS OF LECTURE COURSES

I. Fuel -Introductory

One hour a week throughout the session.

This course is intended for Engineering students and others who wish to acquire a general knowledge of fuel; it will also form part of the first year's course for students taking the B.Sc. Degree in either (i) Gas Engineering or (ii) Fuel and Metallurgy. An elementary knowledge of chemistry is essential in taking this course.

II. Fuel

One hour a week (first and second terms).

Subjects of Course I. will be treated in greater detail in these lectures.

IIa. The Physical Properties of Gases

One hour a week (first and second terms).

III. Fuel

(Carbonisation of Coal. Gaseous Fuels.)

One hour a week (first and second terms).

IIIa. The Chemical Properties of Gases

One hour a week (first and second terms).

The following three Courses (IV to VI inclusive) will be given by specially appointed outside lecturers

IV. The Manufacture of Coal Gas

A special Course of 12 Lectures during the *second* term (January to March), to be delivered in *alternate* sessions.

V. The Distribution and Uses of Coal Gas

Special Courses of Lectures during the *second* term (January to March), to be delivered in *alternate* sessions by specially appointed lecturers.

VI. By-Product Coking Processes

A special Course of 8 Lectures during the *second* term in *alternate* sessions by specially appointed lecturers.

VII. Refractory Materials

A special course of 12 Lectures on Tuesdays, at 6 and 7.30 p.m. during the *second* term in *alternate* sessions.

VIII. Metallurgy—Introductory

One hour a week throughout the session.

The course is an introduction to the study of metallurgy, and will be supplemented by work in the Metallographic Laboratory on the microscopic study of metals and alloys.

It is designed to meet the requirements of Engineering students and others who wish to acquire a general knowledge of the subject.

IX. Metallurgy—Non-Ferrous

(One hour a week throughout the session)

This course covers the principal processes for the extraction of non-ferrous metals.

X. Metallurgy—Iron and Steel

Two hours a week throughout the session.

XI. Metallography and Alloys

One hour a week throughout the session.

This will take the form of special lectures, demonstrations, &c., in which the constitution, micro-structure and heat treatment of industrial alloys will be explained.

XII. Metallurgy—Principles of Analysis

One hour a week.

XIII. Metallurgy for Mining Students

One hour per week. The course will deal with the treatment of ores and the extraction of metals, and will be supplemented by a laboratory course in Assaying.

Fuel and Metallurgical Colloquium

There will be a weekly colloquium held in the department on Thursdays, at 4 p.m., for the discussion of questions relating to the technology of gases, fuel and metallurgy, and for the review of the current literature of those subjects.

Fuel and Metallurgical Laboratories

The accommodation of the department, which has been recently considerably extended, is arranged to provide for both teaching and research. There are general laboratories for both chemical and physical work with special provision for calorimetry and photometry and metallography. Rooms are provided for furnaces and high temperature work, and also a laboratory for the study of the application and flow of heat. A separate installation exists for the study of the heating and ventilating efficiency of gas appliances. The accommodation for research has been recently considerably enlarged and there is a departmental workshop with skilled mechanics in charge. A departmental museum and library is provided, and facilities for reading, writing and drawing. The Corbet Woodall gas plant is specially designed for experimental work on the carbonisation of fuel. It comprises a setting of two horizontal retorts by Gibbons & Co. (Dudley) Ltd, two vertical retorts by the Woodall Duckham Ltd, machinery by the Bryan Donkin Co. Ltd., Chesterfield, meter by Parkinson and Cowan Ltd., condensing, purifying plant and two 1,000 cubic feet gas-holders by Clayton, Son & Co. Ltd, Leeds, and gas-fired steam boiler by Spencer-Bonecourt, Ltd.

The Laboratories will be open during the session from 9.30 a.m. to 1 p.m. and from 2 to 5 p.m. except on Saturday afternoons.

The practical instruction and research will cover the following subjects:

- (a) Examination of solid and liquid fuels.
- (b) Analysis of gases.
- (c) Preparation, compression and liquefaction of gases.
Use of high pressure gas.

- (d) Chemical and physical examination of refractory materials.
- (e) Examination of raw materials and by-products of the manufacture of coal gas, coke and producer gas.
- (f) Examination of water for steam-raising and other industrial uses.
- (g) Pyrometry: thermoelectric, resistance, radiation and optical.
- (h) Calorimetry, photometry, radiometry, and the testing of gas heating and lighting appliances.
- (i) Measurement of the flow of gases and the transmission of heat.
- (j) Analysis of ores, slags, mattes, alloys, and other metallurgical products.
- (k) Microstructure, heat and mechanical treatment of steel and other industrial alloys.

Special courses for outside students in any of the above subjects may be provided by arrangement with the Professor, and every facility will be afforded to properly qualified persons who may wish to undertake research work in connection with industrial processes.

Students will also be encouraged to make themselves acquainted with the researches which are being carried out in the department, the results of which will, at convenient intervals, be explained.

Each student will be furnished with a separate working table, and will be required to provide himself with a regulation set of apparatus. Special apparatus may be obtained on loan, subject to such conditions as may be prescribed by the Professor.

Students will be held liable for any damage arising from careless or unauthorised use of departmental equipment.

Evening Laboratory Work

The laboratory will also be open on Wednesdays from 6 to 9 p.m. during the second term, and instruction will be given in pyrometry, calorimetry, photometry, gas analysis, general gas works testing, and metallography, to a limited number of students who satisfy the Head of the department of their fitness to enter upon the course.

Fee, 10s. 6d.

TEXTILE INDUSTRIES

Endowed by the Clothworkers' Company of the
City of London

The Department comprises the following sections :

- (a) Woollen Yarn Spinning.
- (b) Worsted Yarn Spinning (English and Continental systems).
- (c) Designing, Weaving, and Textile Manufacturing.
- (d) Finishing of Textile Fabrics.
- (e) Textile Testing.
- (f) Research.

Each section possesses a complete plant of machinery designed and constructed for demonstrating the technicalities of the various processes of manufacture.

In addition to their use for teaching purposes, these sectional plants are employed in connection with the investigations and researches which are undertaken by the staff and advanced students. Fellowships and Scholarships specially designed for the promotion of post-graduate research work are offered by the University, the Research Associations and other bodies.

The courses of instruction are designed to meet the requirements of

- (a) Controllers of industry
- (b) Merchants
- (c) Inside Managers (Combing, Spinning, Weaving and Finishing)
- (d) Textile Designers ; and
- (e) Research Workers.

Courses of Study

Although students are admitted for shorter periods, the normal courses of study extend over three years, and in some cases, over four years. Wherever possible students are recommended to take one of the degree courses of study followed by one session's intensive work on Textile problems.

The following are the principal courses of study :

- (A) Ordinary and Honours Degrees of B.Sc. in Textiles.
- (B) Ordinary Degree of B.Com., with Textiles as a principal subject.
- (C) Diploma in Textiles, awarded after one year's post-graduate work following the course of B.Com. with Textiles as a principal subject.
- (D) Diploma in Textile Industries, awarded principally for technological work.

(1) Ordinary Degree of B.Sc. in Textiles

First Year

Mathematics J
Physics Intro.
Chemistry Intro.
General Engineering I
Textiles Preliminary
Materials Study

Second Year

Two of the following :—

- (1) Mathematics F₃, F₄
- (2) Physics F₁
- (3) Organic Chemistry F₃

or

Physical Chemistry F₂
(4)*Engineering IIs
Cloth Structure I (Colour)
Woollen & Worsted Spinning
Cloth Analysis I (Loom Study)
Textile Calculations

Third Year

Cloth Finishing
Textile Testing
Mill Design and Management
Cloth Structure II (Colour Study II)
Cloth Analysis II (Loom Study II)
Complex Textiles
Worsted Spinning II
Worsted Spinning III
Woollen Spinning II
Woollen Spinning III
Handloom Weaving
Power Loom Weaving
Textile Chemistry
Textile Physics
Experimental Dyeing

(2) Honours Degree of B.Sc. in Textiles

Fourth Year

Following graduation in the Ordinary Degree of B.Sc. (Textiles) candidates may obtain Honours in Textiles by presenting a thesis embodying the results of original research. In addition, they shall attend ancillary lectures and pass an appropriate examination.

*Owing to time-table difficulties this option cannot at present be taken.

B.—Ordinary Degree of B.Com. with Textiles as a Principal Subject

<i>First Year</i>	<i>Second Year</i>
Mathematics for Applied Science Students	Economics
Physics (Introductory)	Commercial Law
Economics*	Statistics
Commercial Law	Cloth Analysis I
Textiles (Introductory to Materials, Yarn and Cloth Structure)	Woollen or Worsted Yarn Spinning I
<i>Third Year</i>	
Economics	
Accountancy	
Woollen or Worsted Yarn Spinning II	
Cloth Analysis II	
Textile Testing	

C.—Diploma in Textiles, following the course B.Com. with Textiles as a principal subject

<i>Fourth Year</i>	
<i>Specialising in Spinning.</i>	<i>Specialising in Manufacturing</i>
T3. Woollen Yarn Spinning I	T5. Cloth Structure III
T3a. Woollen Yarn Spinning II	T6. Loom Study II
T4. Worsted Yarn Spinning I	T10. Cloth Analysis II
T4a. Worsted Yarn Spinning II	T8. Colour Study II
T10a. Cloth Analysis I	T9. Cloth Finishing
T9. Cloth Finishing	T12. Mill Management
T11. Textile Testing	T11. Textile Testing
<i>Specialising in Commerce.</i>	
T5. Cloth Structure III	
T6. Loom Study II	
T2. Materials Study	
T8. Colour Study II	
T9. Cloth Finishing	
T12. Mill Management	

During the fourth year, candidates for the Diploma must present a Thesis dealing with some approved Textile research. Such research must have a Mathematical, Physical, Chemical, or Mechanical basis. They must also present the necessary Work Sheets.

N.B.—These courses may necessitate two years' work.

Students taking the degree of B.Sc., or B.Com., or the Diploma, may submit translations and accurate reading of technical French and German as examination subjects.

Graduates of the University and of other approved Universities, who have not taken the courses and passed the examinations above prescribed for the Ordinary Degree of B.Sc. in Textiles or of B.Com. with Textiles as a Principal subject, may be awarded the Diploma, provided that they have pursued the courses of study and passed the examinations (a) in the technological subjects prescribed for the Ordinary Degree of B.Sc. in Textiles and (b) in the subjects (including the thesis) above prescribed for the Diploma.

N.B.—These requirements will normally involve not less than two years' study.

D.—Diploma in Textile Industries

Students who combine with a three years' technological course in the Textile Industries department :—

- (a) The introductory courses of study in Mathematics, Physics and Chemistry ; or
 - (b) Courses of study in General Economics, Financial and Commercial Organisation, S. Statistics, Industrial Law and Accountancy ; or
 - (c) Two courses of study selected from the following : Inter. French ; Inter. German ; Inter. Spanish ; or Inter. Russian Language and Literature ; or
 - (d) Courses of study in Historic Design in the Principles of Ornament and Colour (School of Art) ;
- and pass the examinations not lower than 2nd Class in such courses, as well as in the following indicated subjects, will receive the Diploma in Textile Industries.

FOR COURSES (a) (i) AND (c)

T1.	T3A.	T4A.	T5A.	T6A.	T8A.	T10A.	T14.
T2.	T3B.	T4B.	T5B.	T7.	T9.	T11.	T15.
T3.	T4.	T5.	T6.	T8.	T10.	T12.	T16.

FOR COURSE (d)

T1.	T5A.	T6A.	T8A.	T10A.	T17.
T2.	T5B.	T7.	T9.	T11.	T17A.
T5.	T6.	T8.	T10.	T12.	T17B.

NOTE.—Courses of training taken in other approved institutions will be accepted as part of the qualifications for this Diploma, provided that the courses taken in the University are the equivalent of not less than two complete sessions' courses of study.

During the third year, candidates for the Diplomas (a), (b), (c), must present a Thesis dealing with some approved Textile research. Such research must have a Mathematical, Physical, Chemical, Mechanical, or Economic basis.

Theses should be presented in duplicate and typed on quarto size paper, one copy being retained for the University Library.

Candidates for Diploma (d) must also submit a Thesis based upon their course of study.

Students are further required to present twelve selected "work-sheets" at the end of their final year, and also to present their Lecture Note Books for examination at the end of every term. First year students are expected to present their Lecture Note Books for half-term examination also.

Diploma (a) fulfils the educational requirements of the Textile Institute for its Associateship (A.T.I.), provided that the candidate has passed either the School Certificate Examination or has Matriculated.

Long Vacation Work in the Mills

Students year by year qualifying in the above courses usually have the privilege of spending at least two months of the long vacation in the mills of the district, thus gaining experience under the actual conditions of industry. This concession, kindly granted by many firms in Yorkshire, is highly appreciated by the University.

Lecture Courses, Experimental and Research Work

T1. The Textile Industries (Preliminary)

FIRST YEAR: Lectures on Tuesdays and Fridays from 11 a.m. to 12 noon, throughout the session.

SUBJECTS.—The various Textile Fibres, their distribution and growth; the basic principles of Manipulation.

Physical bases of yarn structures; twist; strains; the trigonometry involved; problems involving the differential and integral calculus; mechanical principles involved.

Theories of interlacing; the trigonometry involved; weights of cloths; graphs; problems involving the differential and integral calculus.

Hosiery, Embroidery, Lacemaking and Braiding.

TEXT BOOKS

Textiles by A. F. Barker and others.

Woollen and Worsted Spinning by A. F. Barker.

Elementary Textile Design by W. Watson.

Advanced Textile Design by W. Watson.

T2. Materials Study

SECOND YEAR: Lectures and Practice on Thursdays, from 11 a.m. to 1 p.m.

SUBJECTS.—Wool, Cotton, Silk, Flax, the Synthetic Fibres, &c., qualities, properties and uses; samples illustrating the various Manufacturing Processes; Compilation of Materials Book.

TEXT BOOK

Textiles (Constable & Co)

T3. Woollen Yarn Production I

FIRST YEAR: Lectures on Tuesdays from 3 to 4 p.m. and on Thursdays, from 2 to 3 p.m. during the 1st term.

SUBJECTS.—Characteristic features of a typical woollen thread, variation due to the use of materials varied in quality and lengths, features due to special methods of treatment in manufacture; Processes up to drying; Machinery; Calculations.

Students attending this course should also attend T1 The Textile Industries (Preliminary).

T3a. Woollen Yarn Production II

SECOND YEAR: Lectures on Wednesdays from 11 a.m. to 12 noon throughout the session.

SUBJECTS.—Processes including carding and spinning; Machinery; Calculations.

T3b. Woollen Yarn Production III

THIRD YEAR: Lecture on Thursdays from 11 a.m. to 12 noon.

T4. Worsted Yarn Production I

(English and Continental Systems).

FIRST YEAR: Lectures on Tuesdays, from 3 to 4 p.m. and Thursdays, from 2 to 3 during the second term.

SUBJECTS.—Characteristic features of a typical worsted thread, variations due to the use of materials varied in quality and length, features due to special methods of treatment in manufacture; Processes including preparing, carding, combing and finishing; Machinery; Calculations.

Students taking this course should also attend T1 *The Textile Industries* (Preliminary).

T4a. Worsted Yarn Production II

SECOND YEAR: Lectures on Fridays, from 3 to 4 p.m. throughout the session.

SUBJECTS.—Materials; Processes including drawing, spinning, twisting and finishing; Machinery; Calculations.

T4b. Worsted Yarn Production III

THIRD YEAR: Lectures on Tuesdays from 4 to 5 p.m.

TEXT BOOKS

Wool Carding and Combing (Cassell & Co., Ltd.)

Woollen and Worsted Spinning (Cassell & Co., Ltd.)

REFERENCE BOOKS FOR WOOLLEN AND WORSTED SPINNING.

Textiles (Constable & Co)

Woollen and Worsted (G. Bell & Sons)

Experimental Work

Woollen Section.—Experiments throughout the session in scouring, blending, carding, spinning and twisting.

Worsted.—Experiments in carding, gilling, combing, drawing, spinning and doubling.

The building, setting, construction, and manipulation of the different machines.

Senior students will also have practical demonstrations on the output and adaptability of the machines for the production of different types of yarn.

T5. Cloth Structure I

FIRST YEAR: Lectures on Tuesdays, from 2 to 3 p.m., and Thursdays, from 11 a.m. to 12 noon during the first term.

SUBJECTS.—*Structures*: Plain, twill, sateen, &c. types; drafted styles; loom mountings, tappet and dobby effects.

T5a. Cloth Structure II

SECOND YEAR: Lectures on Tuesdays and Fridays from 10 to 11 a.m. during the first term.

SUBJECTS.—*Structures*: Backed cloths, double cloths and cut double cloths; reversible double cloths; treble cloths; matelasses; drafting and complex loom mounting.

T5b. Complex Textiles III

THIRD YEAR: A course of study on Tuesdays, from 2 to 4 p.m. throughout the session.

SUBJECTS.—Cloth Structures including tapestry, gauze and plush styles.

Experimental Work

The experimental hand and power loom weaving is organized to enable the student to grasp more perfectly the fundamental principles dealt with in the lecture room.

During the third and fourth years students have the opportunity of selecting the raw material, spinning it into yarn, weaving it into cloth, and finally finishing the cloth. By this means a sound, all-round practical knowledge of wool manufacturing is attained.

T6. Loom Study I

FIRST YEAR: Lectures on Tuesdays and Fridays, from 9 to 10 a.m. during the first term.

SUBJECTS.—The primary motions in weaving; the treadle and dobby hand looms; the principles of shedding, picking, beating up, letting-off, taking-up and boxing.

The power loom: the various types of tappet looms; the simple dobby loom; taking-up mechanisms; picking mechanisms.

T6a. Loom Study II

SECOND YEAR: Lectures on Tuesdays and Fridays from 11 a.m. to 12 noon during the first term.

SUBJECTS.—The various types of dobby looms; shedding mechanisms; boxing mechanisms; special constructions and mountings.

The various types of jacquards—single and double lift—centre and open shedding; harness calculations; harness and shaft mountings; split harness and pressure harness mountings.

Shed designs and organisation.

TEXT BOOK

The Mechanism of Weaving (Longmans & Co.)

REFERENCE BOOK

Jute and Linen Weaving (Macmillan & Co.)

T7. Textile Calculations I

FIRST YEAR: Lectures on Mondays and Thursdays, from 9 to 10 a.m. throughout the session.

SUBJECTS.—Wool yields; conditioning and re-gains; material calculations from carded or prepared sliver to finished yarn; yarn counting and calculations; yarn diameters; twist calculations; the set systems and set calculations; warp and weft calculations; cloth calculations; the metric system of calculations for yarns and cloth; complex yarn and cloth calculations; the weights of cloths.

TEXT BOOKS

Textile Design (Methuen & Co.)

Analysis of Woven Fabrics (Scott, Greenwood & Son)

T8. Colour Study I

FIRST YEAR: Lectures on Tuesdays, from 2 to 3 p.m. and on Thursdays from 11 to 12 noon during the second term.

SUBJECTS.—Colour theories and the attributes of colours; contrast and analogy; colour blending; application of colour to woven design; special colour and weave effects; synthesis and analysis of colour and weave effects.

T8a. Colour Study II

SECOND YEAR : Lectures on Tuesdays and Fridays, from 10 to 11 a.m. during the second term.

SUBJECTS.—The economical introduction of colour into woven fabrics ; the colour limitations of woven design ; the introduction of colour into stripes, checks and figured fabrics, the colouring of special woven styles ; the colouring of double cloths, gauzes and plushes.

REFERENCE BOOK

Colour in Woven Design (Whittaker & Co.)

T9. Cloth Finishing

Lectures on Mondays, from 11 to 12 noon throughout the session.

SUBJECTS.—The objects of finishing : Scouring, crabbing, milling, drying, and tentering, raising, brushing, and steaming, cutting and pressing.

Changes in fabrics from the loom to the finished state ; shrinking ; particular finishes ; finishing costs.

TEXT BOOKS

Finishing of Textile Fabrics (Ernest Benn, Ltd.).

Analysis of Woven Fabrics (Scott, Greenwood & Son)

T10. Cloth Analysis I

FIRST YEAR : Lectures and Demonstrations on Tuesdays and Fridays, from 9 to 10 a.m. during the second term.

SUBJECTS.—The analysis of simple weaves, twills, sateens, and corkscrews ; the analysis of simple textural stripes and checks ; the analysis of colour effects and colour and weave relationships ; weights of materials ; finished weights per yard.

T10a. Cloth Analysis II

SECOND YEAR : Lectures and Demonstrations on Tuesdays and Fridays, from 11 a.m. to 12 noon during the second term.

SUBJECTS.—The analysis of the more complex single structures ; the analysis of warp and weft backed cloths and imitation backed cloths ; the analysis of double and

triple cloths, fancy fabrics, &c. ; calculations on production ; departmental costings.

NOTE.—Additional Cloth Analysis may be taken by special arrangement.

TEXT BOOK

The Analysis of Woven Fabrics (Scott, Greenwood & Son).

T11. *Textile Testing

Lectures on Mondays, from 2 to 3 p.m. throughout the session. Practical testing on Mondays from 3 to 5 p.m. throughout the session. (For B.Sc. students, on Thursdays from 2 to 4 p.m.)

Microscopic examination, fibres, yarns and fabrics ; fibre, yarn and cloth testing for strength, elongation and elasticity ; quality tests of yarns and fabrics ; physical qualitative tests ; the study and use of special testing apparatus ; study of defects in yarns and fabrics.

T12. Mill Design and Management

Lectures and practice on Mondays, from 3 to 5 p.m. throughout the session.

SUBJECTS.—Site selection ; buildings ; drainage ; lighting ; power ; equipment ; estimates of cost for typical plants ; production of machines and sectional plants ; book-keeping ; costings.

Lectures and Demonstrations by University and Industrial Specialists are given in this course.

T13. The Chemical Technology of Textile Fibres, Water and Mordants

Lectures on Mondays and Wednesdays, at 12 noon during the first term. (Colour Chemistry and Dyeing Department).

T14. Experimental Dyeing

Lectures and laboratory work on Friday afternoons during the first and second terms. (For B.Sc. students on Saturdays from 9 a.m. to 12 noon).

T15. The Elements of Mathematics, Physics and Chemistry with special reference to the requirements of Textile Technology.

Mathematics, Fridays 10 to 11 a.m.

*NOTE.—Students take the Chemical Technology of the Textile fibres in the Dyeing Department. Large scale experiments, however, may be arranged for in the Textile Industries Department.

Physics, Wednesdays 10 to 11 a.m.

Chemistry, Mondays 10 to 11 a.m.

Courses of lectures serving as an introduction to the technological lectures (T16), intended for students who have not attained matriculation standard.

T16a. Textile Physics

Lectures on Thursdays from 10 to 11 a.m. throughout the session.

T16b. The Physical Chemistry of Textile Materials and Processes

Lectures on Mondays from 12 noon to 1 p.m. throughout the session.

Subjects.—The chemistry of wool; the physical properties of wool considered in relation to manufacturing processes; hardness of water; chemistry of oils, fats, waxes and soaps; testing of wool oils and creams; scientific principles of scouring, milling, carbonising, sizing, chlorination, dyeing and general finishing processes. Lubrication. Humidity and humidification.

Experimental Work

Analysis and Testing of Wool Oils and Soaps

A practical course of analysis of wool oils, soaps, etc., occupying a minimum of six hours per week, has been arranged to meet the requirements of students and firms particularly interested in the subject of wool oils and the oiling of wool.

Art Applied to Textile Design

The courses of study relate to the analysis, composition and colour qualities of decorative design applicable to all styles of woven fabrics, and comprise lectures and practice arranged from simple Jacquard productions to Complex Structures in conjunction with all Complex loom mountings.

T17. First Year Course

Limitations in Designing for Figured Textiles, construction and development of point paper plans from sketches for simple types; Designing of effects for simple

Jacquard productions; *Principles of ornament and colour.

T17a. Second Year Course

Point paper designs for fancy dress goods and decorative fabrics and preparation of same for loom. Designing of figured fabrics in compound weaves; *Historic ornament.

T17b. Third Year Course

Analysis of Museum specimens for Design Colour and Structure. Designing and preparation of Complex designs for the loom, including Carpets, Tapestries, Damasks, Brocades, Gauzes, Velvets, &c.

Students in III. Year will specialise in any particular branch in which they are interested.

TEXT BOOK FOR FIRST AND SECOND YEAR COURSES
Ornamental Design for Woven Fabrics (Methuen & Co.)

Arrangements may be made by which students who wish to devote themselves more closely to the artistic side of Textile Design may attend the Department for two or more days per week.

**T18. Economics, Statistics, Commercial Law
and Accountancy**

For these subjects students are referred to the prospectus of the Department of Economics and Law.

T19. French, German, Spanish and Russian

Students are advised to take the special classes usually arranged in the several Language Departments of the University for technological students.

**T20. Textile Course for Students of the Colour
Chemistry and Dyeing Department**

A course of about twenty lectures and demonstrations on textile manufacturing (raw materials, spinning, weaving, and cloth finishing) during the first and second terms.

T21. Museum Study: Use of Reference Library

All students are expected to consult the Museum Specimens, which cover the complete range of textile

*These Classes are held at the Leeds College of Art.

processes and to refer to the Standard Text Books which are housed in the department.

The collection of Textile Fabrics (old and modern) is said to be second only to South Kensington and should prove an inspiration to students studying Textile Design.

Special Lectures

During the first and second terms lectures will be given on Thursdays, from 3 to 4 p.m., by lecturers specially conversant with the pressing problems of the industry.

In previous sessions the following lectures have been given :—

- "Australia and Australian Wools."
- "Industrial Organization in the United States."
- "South American Wools and Woolgrowing."
- "Textile Research Associations in Germany."
- "The Functions of a Testing Department in the Factory."
- "Colour Organisation."
- "Early Textile Inventors."
- "Artificial Silk." (Series).

Research Work

The equipment in the various sections of the department affords special facilities for original research in the processes of yarn spinning, fabric structure and designing and finishing. Arrangements are also made for those students specialising in Textile Engineering to conduct researches in the Textile Industries Department.

Science graduates, and students taking the textile physics and chemistry courses, are invited to assist in physical and chemical researches on textile materials and processes.

Scheme of Co-operation between the University of Leeds and the Wool Industries Research Association

1. Duly qualified graduates in Science or Technology may, in accordance with the Ordinances and Regulations

laid down in the University Calendar, proceed to the degrees of Doctor of Philosophy or Master of Science of the University of Leeds after the prosecution of research work at the Wool Industries Research Association under the Director of that Association.

2. Graduates of other Universities than Leeds, and Leeds graduates without satisfactory previous training in Textile Industries, wishing to come under this scheme will be required to attend approved courses in the Textile Industries Department of the University for not less than one year. This prescribed attendance in the University may be either previous or subsequent to their period at Torrington, preferably in the first year.

3. All candidates for post-graduate degrees while carrying on their work at the Research Association at Torrington will be under the immediate and direct control of the Director of the Research Association at Torrington, who must be approved by the University for this purpose.

4. All students proceeding to degrees through research work at Torrington must be duly registered students of the University of Leeds, and, as such, shall be under the discipline of the University. They will be required to pay such tuition fees as may be determined by the University Council, and shall be entitled to all the privileges of the University Union, Library, &c., on payment of the appropriate fees.

5. For the purposes of this scheme, the Committee recommend that the Director of the Research Association at Torrington be appointed an Honorary member of the staff of the Textile Industries Department of the University of Leeds, with the title of "Director of Torrington Research Students."

**Scheme of Co-operation between the University of
Leeds and the British Silk Research Association**

1. Duly qualified graduates in Science or Technology may, in accordance with the Ordinance and Regulations laid down in the University Calendar, proceed to the

degree of Doctor of Philosophy or Master of Science of the University of Leeds after the prosecution of research work in the laboratories of the British Silk Research Association located within the University of Leeds and under the Director of that Association.

2. Graduates of Universities other than that of Leeds, and Leeds graduates without satisfactory previous training in Textile Industries or in Colour Chemistry and Dyeing, wishing to come under this scheme will be required to attend approved courses in the Textile Industries Department of the University for not less than one year, or such courses in Colour Chemistry and Dyeing as may be deemed necessary. This prescribed attendance in the Departments of Textile Industries or Colour Chemistry and Dyeing may be either previous or subsequent to the period spent in research in the laboratories of the Silk Research Association, preferably in the first year.

3. All candidates for post-graduate degrees while carrying on their work in the laboratories of the Silk Research Association within the University will be under the immediate and direct control of the Director of the Silk Research Association, who must be approved by the University for this purpose.

4. All students proceeding to degrees through research work under this scheme must be duly registered students of the University of Leeds, and, as such, shall be under the discipline of the University. They will be required to pay such tuition fees as may be determined by the University Council, and shall be entitled to all the privileges of the University Union, Library, etc., on payment of the appropriate fees.

5. For the purposes of this scheme, the Director of the Silk Research Association within the University should be appointed an Honorary member of the staff of the Department of Textile Industries of the University of Leeds, with the title of "Director of Silk Research Students."

Textile Industries

First Year Time Table for B.Sc. Course

	9-10	10-11	11-12	12-1	2-3	3-4	4-5
MON.	Maths. J.	General Engineering I	—	Chemistry Intro.	—	—	—
TU.	Maths. J.	Physics Intro	Textiles Prelim.	—	—	—	—
WED.	Maths. J.	—	—	Chemistry Intro.	—	—	—
THU.	—	Physics Intro.	Materials Study	—	—	Engineering Drawing	—
FRI.	Maths. J.	General Engineering I	Textiles Prelim.	Chemistry Intro.	—	—	—
SAT.	—	Physics Intro.	—	—	—	—	—

The above time table is to be supplemented by 6 hours' Chemical Laboratory and 6 hours' Physics Laboratory, at times to be arranged.

Second Year Time Table for B.Sc. Course

	9-10	10-11	11-12	12-1	2-3	3-4	4-5
MON.	Textile Calculations	<i>Maths F₃</i>	<i>Physics F₁</i>	<i>Maths. F₄</i>	—	—	—
TU.	Loom Study I and Cloth Analysis I	<i>Physical Chem. F₂</i>	Woollen Spinning Practical	<i>Organic Chem. F₃</i>	Cloth Structure I and Colour Study I	Woollen and Worsted Spinning I	Woollen Spinning Practical
WED.	Worsted Spinning Practical	<i>Maths. F₃</i>	<i>Physics F₁</i>	<i>Maths. F₄</i>	—	—	—
THU.	Textile Calculations	<i>Physical Chem. F₂</i>	Cloth Structure I and Colour Study I	<i>Organic Chem. F₃</i>	Woollen and Worsted Spinning I	—	—
FRI.	Loom Study I and Cloth Analysis I	<i>Maths. F₁</i>	<i>Physics F₁</i>	<i>Maths. F₄</i>	—	—	—
SAT.	—	<i>Physical Chem. F₂</i>	—	<i>Organic Chem. F₃</i>	—	—	—

Students are required to select two of the Science subjects shown in italics in the time table. N.B.—The Physics and Chemistry Courses require 6 and 9 hours' additional laboratory work respectively.

Third Year Time Table for B.Sc. Course

9-10							
MON.	Cloth Finishing Practical	Handloom Weaving	Cloth Finishing Lecture	Textile Chemistry	Textile Testing Lecture	Mill Management and Design	
TU	Power Loom Weaving	Cloth Structure II and Colour Study II	Loom Study II and Cloth Analysis II		Complex Textiles	Worsted Spinning III	
WED.	Woollen Spinning Practical		Woollen Spinning II				
THU.	Power Loom Weaving	Textile Physics	Woollen Spinning III		Textile Testing Practical		
FRI.	Worsted Spinning Practical	Cloth Structure II and Colour Study II	Loom Study II and Cloth Analysis II		Handloom Weaving	Worsted Spinning II	Worsted Spinning Practical
SAT.	Experimental Dyeing						

First Year Time Table for Diplomas (a) and (b)
in Textile Industries

	9-10	10-11	11-12	12-1	2-3	3-4	4-5
MON.	Textile Calculations	Handloom or Textile Chemistry	Weaving	<i>Chemistry Intro.</i>	Power Maths. Intro	Loom Weaving	
TU.	Loom Study I & Cloth Analysis I	General Economics or <i>Physics Intro</i>	Textiles Prelim.	—	Cloth Structure I & Colour Study I	Woollen and Worsted Spinning I	Woollen Spinning Practical
WED.	Worsted Spinning Practical <i>Maths. Intro.</i>	Handloom or Textile Physics	Weaving	<i>Chemistry Intro.</i>	—	—	—
THU.	Textile Calculations	General Economics or <i>Physics Intro.</i>	Cloth Structure I & Colour Study I	—	Woollen and Worsted Spinning I	Woollen Spinning Practical	
FRI.	Loom Study I & Cloth Analysis I	Museum Study or Textile Maths.	Textiles Prelim.	<i>Chemistry Intro.</i>	Dyeing or <i>Maths. Intro.</i>	Dyeing Practical	
SAT.	Handloom Weaving	Handloom <i>Physics Intro.</i>	Weaving	—	—	—	—

*The subjects in italics are required for Diploma (a).

Second Year Time Table for Diploma in Textile Industries

	9-10	10-11	11-12	12-1	2-3	3-4	4-5
MON.	Cloth ³ Finishing Practical		Cloth Finishing Lecture	Textile Chemistry	Textile Testing Lecture	Textile Testing Practical	
TU.	Power Loom Weaving	Cloth Structure II (Colour Study II)	Loom Study II (Cloth Analysis II)	Business Economics	Power	Loom Weaving	
WED.	Woollen Spinning Practical		Woollen Spinning II	Textile Economics	—	—	—
THU.	Power Loom Weaving	Textile Physics	Materials Study		Handloom Weaving		
FRI.	Worsted Spinning Practical	Cloth Structure II (Colour Study II)	Loom Study II (Cloth Analysis II)	Textile Economics	Worsted Spinning Practical	Worsted Spinning II	Worsted Spinning Practical
SAT.	Handloom Weaving or Museum Study			—	—	—	—

Third Year Time Tables for Diplomas (a) and (b) in Textile Industries

A.—For Students specialising in Spinning

MON.	Woollen Spinning (Worksheets and Experiments)		Mill Management and Design
TU.	Handloom Weaving	Complex Textiles	Worsted Spinning III
WED.	Experimental Scouring, Carding, Combing, etc.		
THU.	Handloom Weaving	Woollen Spinning III	Experimental Woollen or Worsted Spinning
FRI.	Worsted Spinning (Worksheets and Experiments)		Experimental Woollen or Worsted Spinning
SAT.	Textile Chemistry		

B.—For Students specialising in Cloth Manufacture

9-10		2-3	
MON.	Practical Cloth Structure and Colouring	Handloom Weaving	Mill Management and Design
TU.	Handloom Weaving	Complex Textiles	Worsted Spinning III
WED.	Cloth Finishing	—	—
THU.	Woollen Spinning (Worksheets and Experiments) III	Experimental Loom	Study
FRI.	Worsted Spinning (Worksheets and Experiments)	Cloth Finishing.	
SAT.	Practical Cloth Structure and Colouring	—	

DEPARTMENT OF COLOUR CHEMISTRY AND DYEING

The instruction given in this Department is primarily directed towards the provision of a sound and broad education in preparation for a career in any of the branches of industry in which the chemistry of the colouring-matters and of textile fibres and processes to which they are submitted plays an important part. The courses of study arranged qualify students for taking positions as dyers' chemists, masters of dyeworks, practical dyers, printworks chemists, bleachers' chemists, experts in dyestuff analysis, travelling chemists to dye manufacturers, chemists in colour works, lake-pigment manufacturers, chemists in textile works, chemists in artificial silk works, &c. Advanced chemical students can also make arrangements to carry out special work in the department in any of the collateral branches of chemical industry based upon applied organic chemistry, such as tar and petroleum distillation and products, synthetic drugs, synthetic perfumes, cellulose products, ink manufacture, &c.

The particulars which follow give the courses of study prescribed for students who have not already passed through a chemical training. Students holding a science degree of any University (English or foreign), the Associateship or Fellowship of the Institute of Chemistry, or otherwise bringing forward evidence of sufficient previous education in pure chemistry and general science will be admitted to the later stages of any of the courses and will be permitted to undertake at once more specialised work in the department.

The lectures upon "Colouring Matters" are open to senior chemical students without entrance upon any special course or other work in the department.

Attention is drawn to the provisions of the Ordinances of the University by which periods of study and examinations passed at other Universities may be accepted by the Senate as exempting undergraduates from a certain amount of attendance and from certain examinations in this University.

Graduates or persons who have passed the Final examinations for degrees of other approved Universities may, under certain conditions, enter the University and after not less than two years of attendance on advanced study or research, become candidates for the degree of Ph.D. or M.Sc. without taking the B.Sc. degree.

SYLLABUS OF COURSES

I. Four Years' Course qualifying for the Honours B.Sc. Degree in Colour Chemistry

Suitable for those desiring to become chemists in colour works, dyers' chemists, print works chemists, travelling chemists for dye manufacturers, experts in analysis of dyewares, &c.

If taken after Matriculation this course qualifies for an Ordinary or Honours B.Sc. degree. Unmatriculated students are eligible for the Diploma in Colour Chemistry under the conditions mentioned in Section II below.

First Year	Per week.
Lectures on Chemistry (Introductory Course) ..	4 hrs.
Chemical Laboratory	21 "
Lectures on Physics (Introductory Course) ..	3 "
Physics Laboratory	3 "
Mathematics for Applied Science Students (J) ..	3 "
German .. .. .	..

The work in the chemical laboratory will consist of inorganic preparations and qualitative analysis.

Second Year

Per week.

Lectures on Inorganic and Organic Chemistry (F1 and F3)	6 hrs.
Chemical Laboratory	18 "
Lectures on Dyeing (Introductory Course) ..	} 10
Experimental Dyeing Laboratory	
German	

The work in the chemical laboratory will consist of quantitative analysis, organic analysis, and organic preparations.

Third Year

Per week.

Experimental Dyeing Laboratory, Calico Printing, and Practical Dyehouse	} *25 hrs.
Colour Chemistry Laboratory	
Lectures on Chemistry (F2)	3 "
*Physical Chemical Laboratory (2nd Term) ..	12 "
Lectures on Chemical Technology of Textile Fibres (1st Term)	
Lectures on the Chemistry and Technology of Dyeing (2nd Term)	
Lectures on General Engineering (I)	2 "
Practical Cloth Finishing (2nd Term)	3 "
Lectures on the Chemistry of Intermediates and Dyes (Introductory Course, 1st and 2nd terms)	1 "
Leather Dyeing	
German	

Fourth Year

Per week.

Colour Chemistry Laboratory	30 hrs.
Lectures on Artificial Colouring Matters (1st and 2nd Terms), Parts 1 and 2	} 4 "
Lectures on Natural Colouring Matters (1st and 2nd Terms)	
German	1 "

It is desirable that all students in their fourth years should take the Lectures on Organic Chemistry (H3) during the 1st and 2nd terms, and on Technological Colloid Chemistry during the 1st term.

*During the 2nd Term the hours spent in Physical Chemical Laboratory are deducted from the hours allotted to Dyeing.

II. Four Years' Course for Colour Chemists qualifying for the Diploma in Colour Chemistry

This course is identical with that qualifying for an Honours B.Sc. degree, and has been arranged to meet the requirements of unmatriculated students.

III. Three Years' Course qualifying for the Ordinary Degree of B.Sc. in Dyeing

First Year		<i>Per week.</i>
Lectures on Chemistry (Introductory Course)	4 hrs	
Chemical Laboratory	21 "	
Lectures on Physics (Introductory Course) ..	3 "	
Physics Laboratory	3 "	
Mathematics for Applied Science Students (J) ..	3 "	
German		
Second Year		<i>Per week.</i>
Lectures on Chemistry (F1 and F3) ..	6 hrs	
Chemical Laboratory	18 "	
Lectures on Dyeing (Introductory Course)	12 "	
Experimental Dyeing Laboratory ..		
German		
Third Year		<i>Per week.</i>
Experimental Dyeing Laboratory, Calico	25 hrs.	
Printing and Practical Dyehouse		
Colour Chemistry Laboratory		
Lectures on Chemistry (F2)	3 "	
Lectures on Chemical Technology of Textile		
Fibres (1st Term)		
Lectures on the Chemistry and Technology of		
Dyeing (2nd Term)		
Lectures on General Engineering (I)		
Practical Cloth Finishing (2nd Term) ..		
Lectures on the Chemistry of Intermediates and		
Dyes (Introductory Course, 1st and 2nd		
Terms)		
Leather Dyeing		
German		

IV. Three Years' Course qualifying for the Diploma in Dyeing

This Course is very similar to that for the Ordinary B.Sc. Degree and has been arranged to meet the requirements of unmatriculated students.

First Year

	<i>Per week.</i>
Lectures on Chemistry (Introductory Course) ..	4 hrs.
Chemical Laboratory	21 "
Lectures on Physics (Introductory Course) ..	3 "
Physics Laboratory	3 "
German	

The work in the chemical laboratory will consist of inorganic preparations and qualitative analysis.

Second Year

	<i>Per week.</i>
Lectures on Chemistry (F1 and F3)	6 hrs.
Chemical Laboratory	14 "
Lectures on Dyeing (Introductory Course) ..	} 16 "
Experimental Dyeing Laboratory	
German	

Third Year

	<i>Per week.</i>
Experimental Dyeing Laboratory, ..	26 hrs.
Practical Dyehouse and Calico Printing	
Lectures on Chemical Technology of Textiles ⁶	
Fibres (1st Term)	3 "
Lectures on the Chemistry and Technology of Dyeing (2nd Term)	
Lectures on General Engineering (I) ..	2 "
Practical Cloth Finishing (2nd Term) ..	3 "
Lectures on the Chemistry of Intermediates and Dyes (Introductory Course, 1st and 2nd Terms)	
Leather Dyeing	
German	

V. Part-time Dyers' Apprenticeship Course

This course is designed for those who wish to make arrangements to be simultaneously apprenticed in a Dye-Works. The course will cover five years but work at the University will only extend over two terms in each year, viz: from the beginning of October to the end of March, the remainder of the year being spent in the works.

An alternative arrangement (especially recommended if the student is under 16) is for the first year to be spent entirely in the Dye-Works, the second, third and fourth years half-time at the University as above, and the fifth year entirely at the University.

The articles of apprenticeship must contain a provision that the apprentice is entitled to spend the whole of his time at the University during the periods specified.

The full course qualifies for the Diploma in Dyeing.

First Year				<i>Per week.</i>
Chemistry Lectures (Introductory Course)	..			4 hrs.
Chemical Laboratory	..	..	..	23 "
Physics Lectures	..	..	..	3 "
Physics Laboratory	..	..	..	3 "

Fee for the Half-year (including Library and Union Fees), £28.

Second Year				<i>Per week.</i>
Inorganic Chemistry Lectures (Fr)	..	..		3 hrs.
Chemical Laboratory	..	..	..	27 "
Experimental Dyeing Laboratory	..	..		3 "

Fee for the Half-year (including Library and Union Fees), £28.

Third Year				<i>Per week.</i>
Organic Chemistry Lectures (F 3)	..	..		3 hrs.
Chemical Laboratory	..	..	..	12 "
Lectures on General Engineering (I)	..	..		2 "
Experimental Dyeing Laboratory and Practical Dyehouse	..	..	..	12 "
German	..	..	..	..

Fee for the Half-year (including Library and Union Fees), £31.

Fourth Year

Per week.

Lectures on Chemical Technology of Textile ⁷	
Fibres (1st Term)	
Lectures on the Chemistry and Technology of Dyeing (2nd Term)	3 hrs.
Experimental Dyeing Laboratory and Practical Dyehouse	24
Leather Dyeing	
German	

Fee for the Half-year (including Library and Union Fees), £31.

Fifth Year

Per week

Lectures on the Chemistry of Intermediates and Dyes (Introductory Course, 1st & 2nd Terms)	3 hrs.
Experimental Dyeing Laboratory, Practical Dye-house, Calico Printing and Textile Manufacture	30
German	

Fee for the Half-year (including Library and Union Fees), £31.

Regulations for Diplomas in Dyeing and Colour Chemistry

Candidates for either of these Diplomas are required :
I. *During the Course*—

- (a) To give satisfactory attendance upon the subjects which form any part of the course of study.
- (b) To present themselves for any Departmental examinations that may be held in the subjects forming part of their course of study. The record of students at their Departmental examinations will be taken into account in deciding the results of the Diploma examination.
- (c) To make formal entry, on the prescribed form, not later than March 1st of the last session of the course, and to pay, at the same time the prescribed examination fee.

II. At the end of the Course—

- (a) To reach a satisfactory standard in any Final examination which may be set.
- (b) To translate into English a passage of French or German technical literature. A foreign student who can show that he has received a good general education will be exempted from this language test.

III. A Diploma may be granted upon a degree course provided that the subjects studied for the degree include those prescribed for the Diploma, and that the other conditions are complied with.

A student producing evidence of adequate previous scientific or practical training, may, upon application to the Senate, be exempted from a portion of the normal course and may qualify for the Diploma upon a shortened period of study.

SYLLABUS OF LECTURES

I. The Chemical Technology of Textile Fibres, Water and Mordants

Mondays, Wednesdays, and Fridays, at 11.30 a.m. during the first term.

The lectures will deal with the following subjects:—

Isolation, purification, bleaching and finishing the various vegetable and animal fibres: cotton, linen, kapok, ramie, jute, hemp, wool, mohair, silk, etc. Chemical and physical properties of the textile fibres and differences in behaviour with reagents. Chemical constitution and identification. Conditioning of fibres. Manufacture and properties of various forms of artificial silk. Other cellulose products: paper, gun cotton, xylonite, viscoid, cellulose acetate. Mercerisation of cotton. Immunisation of cotton. Carbonisation and chlorination of wool. Wool recovery; identification of shoddy fibre in wool. Methods of increasing and diminishing the dyeing affinity of wool and cotton.

Methods of weighting silk and of estimating the degree of weighting. Water-proofing of woollen materials. Fire-proofing of cotton materials. Faults in fabrics and their investigation. Stripping and stripping-agents. Water-softening and water-analysis. Treatment of factory effluents. Recovery of wool grease from wool-washing liquors. Preparation of mordants and chemistry of their application to the various fibres.

Books recommended

Matthews, *Textile Fibres*.
Hall, *Cotton Cellulose*.
Heermann, *Technologie der Textilveredelung*.
Reinthal and Rowe, *Artificial Silk*.

II. The Chemistry and Technology of Dyeing

Mondays, Wednesday and Fridays, at 11.30 a.m. during the second term.

This course forms a continuation of I, and covers the following subjects :—

Theory of dyeing. Relationships between chemical constitution of dyestuffs and fibres. Classification of dyestuffs. Methods of application in dyeing and textile printing of the various classes of dyestuffs : basic, acid, mordant, salt, insoluble, developed, sulphide, vat, and also of the special dyes for cellulose acetate. The dyeing of artificial silks. Chemical constitution of the various dyestuff types. Analysis of dyestuffs on the fibre. Testing colours for fastness. Dyeing machinery and arrangement of the dyehouse. Choice of dyestuffs for specific purposes. Dyeing of union materials and of mixed materials of wool, silk, cotton, artificial silk, &c. Machinery and processes of calico-printing.

Books recommended

Knecht, Rawson, & Loewenthal, *Manual of Dyeing* (2 vols.).
Hübner, *Bleaching and Dyeing of Fibrous Materials*.
Whittaker, *Dyeing with Coal Tar Dyestuffs*.
Hall, *Bleaching, Dyeing, Printing and Finishing Machinery*.
Knecht & Fothergill, *Principles and Practice of Textile Printing*.

III. Introductory Course of Dyeing

This Course is intended for second year students and for Textile students and will consist of about 16 lectures on Fridays at 2 p.m. The Experimental Dyehouse will be open to suit the times of the students.

The work undertaken will be similar to that under Paragraph A (Experimental Dyeing Laboratory). See later page.

**IV. The Chemistry of Intermediates and Dyes
(Introductory Course)**

Thursdays, 4 p.m., 1st and 2nd terms.

Raw materials used in the dyestuff industry. Processes of sulphonation, alkali fusion, nitration, reduction, and alkylation. Classification of dyestuffs according to their chemical structure: chromophores, chromogens, auxochromes, leuco-compounds, quinonoid theory, nitro, nitroso, azo, stilbene, ketonimine, triphenylmethane, xanthene, acridine, anthracene, indamine, thiazine, oxazine, azine, indigoid, thiazol, and sulphur dyes.

Books recommended

A. Wahl, *Organic Dyestuffs* (translated by F. W. Attack).

V. Chemistry of the Artificial Colouring Matters (Part I)

Mondays at 4 p.m., and Tuesdays at 11.30 a.m., during the first and second terms.

The lectures will comprise the following subjects:

Origin and historical development of the coal-tar industry. Distillation of coal-tar and separation of benzene, toluene, xylene, naphthalene, acenaphthene, anthracene, phenol, cresol, pyridine, carbazole, &c. Constitution of benzene. Isomerism and orientation in the benzene series. Laws of substitution in the benzene, and naphthalene series. Valuation of commercial products. Preparation of intermediate products: nitro compounds, sulphonic acids, amines and their derivatives, diamines, phenols, aminophenols, halogen compounds, aldehydes, ketones, quinones, diazo compounds, &c. Relation between chemical constitution and colour; quinonoid theory of dyestuffs. Quinonoid addition as the mechanism of dyestuff formation. Classification of

dyestuffs according to their chemical structure : nitroso, nitro, insoluble azo, ketonimine, triphenylmethane, xanthene, acridine, anthracene, indamine, azine, oxazine, thiazine, sulphur, quinoline, and indigoid groups. The manufacture, properties and constitution of important typical examples of these groups. General methods and plant employed. Recent progress.

VI. Chemistry of Artificial Colouring Matters (Part II)

Thursdays at 11.30 a.m., and Fridays at 4 p.m., during the first and second terms.

This course is intended more especially for those students who desire to enter a Colour factory, and will present a detailed account of the derivatives of naphthalene, diazo compounds, and the azo, pyrazolone, stilbene and thiazol colouring matters. Application of Werner's theory to lake formation. Special attention will be devoted to the more important types of factory plant, the materials involved in their construction, and to works practice in general.

Books recommended

- Warnes, *Coal Tar Distillation*
- Cain, *Manufacture of Intermediate Products for Dyes*
- Davidson, *Intermediates for Dyes*
- Groggins, *Aniline and its Derivatives*.
- Fierz-David, *Dye Chemistry*.
- Mohlau & Bucherer, *Farbenchemisches Praktikum*.
- Mason, *A Text Book of Dye Chemistry*.
- Fierz-David, *Künstliche Organische Farbstoffe*.
- Rowe, *Colour Index and Supplement*.
- Thorpe & Ingold, *Synthetic Colouring Matters, Vat Colours*.
- Hewitt, *Synthetic Colouring Matters, Dyestuffs derived from Pyridine, Quinoline, Acridine, and Xanthene*.
- Watson, *Colour in Relation to Chemical Constitution*.

VII. Chemistry of Natural Colouring Matters

Tuesdays at 4 p.m. during the first and second terms.

The lectures will deal with the origin, chemistry and technology of the natural dyestuffs : Madder, chay root, munjeet, morinda root, alkanet, ventilaigo root, logwood, brazilwood, cochineal, kermes, lac dye, sanderswood, barwood, safflower, cudbear, orchil, litmus, weld, dyer's broom, butea frondosa, turmeric, quercitron bark, Persian

berries, Indian yellow, gentian root, young fustic, old fustic, catechu, indigo, woad, Tyrian Purple, annatto, anthocyan pigments, chlorophyll, tannins.

Books recommended

Rupe, *Chemie der Naturlichen Farbstoffe*.

Thorpe's *Dictionary of Applied Chemistry*.

Perkin and Everest, *The Natural Organic Colouring Matters*.

LABORATORY WORK

A. Experimental Dyeing Laboratory

Open for work every weekday during the session from 9 a.m. to 5 p.m., Saturdays 9 a.m. to 12.30 p.m. The laboratory is fitted up with modern dyebaths suitable for comparative dyeing trials, drying stoves, daylight matching lamps, and other appliances.

The work undertaken will include the following subjects:—Systematic dyeing trials with the different groups of dyestuffs upon cotton, wool, and silk. Application of various mordants and assistants. Methods of dyeing union materials. Also the dyeing of artificial silks, linen, ramie, furs, &c. Principles of colour mixing and matching. Scouring and bleaching of cotton and wool. Quantitative dyeing of colouring matters for strength and shade. Identification and analysis of colouring matters on the fibre. Testing colouring matters for fastness. Preparation and analysis of mordants. Analysis of water and removal of impurities. Technical analysis and valuation of dyewares, soap, oils, etc. Detection of different fibres and estimation in mixtures. Examination of newly introduced colouring matters, and determination of their value as dyestuffs. Investigations upon dyeing processes. The use of the colorimeter, tintometer, and spectroscope. Identification of impurities in grey and dyed cloths. Examination of "finishes." Identification of stains and faults in dyed materials, and their removal.

A special exposure chamber in an elevated position provides facilities for making tests of the fastness of colours to light, and a Fadeometer permits the fastness to light to be determined more rapidly also.

B. Practical Dyehouse

The Practical dyehouse is equipped with all the necessary machinery for dyeing wool, cotton and artificial silks in their various stages of manufacture. The machines are all of modern type and include Callebaut & D'Blicquy top and loose wool, Simplex, Hussong, Winch machines, and Jigger.

In this dyehouse all students of dyeing receive training in the treatment of various classes of textile materials.

C. Calico Printing

- A practical course in calico printing is held during the third term, the work comprising experiments in the different styles, discharges, resists, printing with diazo compounds, aniline black, indigo, &c.

D. Colour Chemistry Laboratories

The laboratories are spacious buildings provided with every facility for the conduct of chemical work upon colouring matters. The work carried out comprises the following subjects :

Third Year Laboratory

Quantitative analyses of raw products and intermediates. Technical methods of analysis. Preparation of intermediates and dyes by technical methods, etc.

Fourth Year Laboratory

Identification of dyestuffs. Critical study of intermediates, their isolation and properties. Analyses of dyestuffs and their intermediate products. Ultimate analyses of organic compounds. Researches upon artificial and natural colouring matters. Investigation of technical problems, etc. •

Practical Cloth Finishing

A short series of lectures is given in the Textile Department to students on the treatment of wool from the raw state to the finished cloth, and of the properties of the material in the various stages of its manufacture.

Leather Dyeing.

Two lectures and two laboratory demonstrations are given in the Leather Industries Department on the manufacture and dyeing of leather. Chrome, oil and vegetable tannages, the characteristics of the leathers obtained, and practical dyeings with the various classes of dyestuffs are included.

E. Clothworkers' Research Laboratory .

Special facilities are provided for the conduct of original research in the chemistry of artificial and natural colouring-matters, and upon dyeing processes. The laboratory is a spacious one and well equipped for carrying out scientific and technical investigations in these subjects. Post graduate and other advanced students are admitted to research work under the direction of the Professor and Lecturers, and will find an extra year or two thus spent greatly to their future advantage. Graduates of other Universities (British or foreign), and other qualified chemists, may also obtain admission as research workers for any period desired.

F. Special Fees for Apparatus, Chemicals and Dyeing Materials "

To cover cost of materials and loan of special or large apparatus, fourth year degree students are required to pay £3 3s., third year degree students and third year diploma students £2 2s., second year degree students and second year diploma students £1 1s. per session. Part time students from 10s. 6d. to £1 11s. 6d. per session, according to time worked. All ordinary apparatus, however, must be provided by the student.

Research students are required to pay a deposit fee of £1 11s. 6d. at the beginning of each session, £1 1s. being repayable at the end of each session after deduction of the cost of undue breakages.

Students can only start work after production of receipts for these amounts respectively.

MUSEUM

The museum of natural and artificial dyestuffs and textile fibres is open to students daily.

VACATION WORK

The laboratories of the department will be open to qualified students for research and private study during a part of the long vacation, but students are strongly recommended to employ the time in gaining practical experience in works wherever such a course is possible. The Professor will be glad to give advice before the end of the term as to suitable courses of vacation study, and to consider applications from students desiring the use of the laboratory.

APPOINTMENTS

Students who have taken the full courses as recommended above, and have done satisfactory work during the period may rely upon receiving all possible assistance in obtaining suitable positions when their term of study is completed. The Professor takes a personal interest in placing students, and is consulted by firms having vacancies.

CITY AND GUILDS EXAMINATIONS

The above courses prepare for the technological examinations of the City and Guilds of London Institute in Dyeing and also in Coal Tar Products and Colouring Matters. Students of the Department are recommended to present themselves for these examinations in the last year of their University course.

In connection with these examinations, certificates, money prizes, and silver and bronze medals are awarded to the successful candidates. The examinations are held annually at the University in April, May, or June. Entries for the next examination will be received by the Local Secretary, The University, Leeds, not later than March 1st, of each year.

INSTITUTE OF CHEMISTRY

Students who have graduated in Colour Chemistry with First or Second Class Honours, and who have attained the age of 21 years are eligible to apply for admission to the Associateship of the Institute of Chemistry without further examination.

Forms of Application and Forms of Regulations for the admission of Students, Associates, and Fellows may

be obtained from the Registrar, Institute of Chemistry, 30, Russell Square, London, W.C.1.

EVENING CLASSES

The evening classes are conducted in co-ordination with the schemes of Technical Education instituted by the Education Committees of the Leeds City Council and of the West Riding of Yorkshire. All candidates for admission to these classes are required to furnish evidence of adequate preparation for the course of study which they propose to take.

For further particulars see Evening Class Prospectus.

SILK RESEARCH

1. Duly qualified graduates in Science or Technology may, in accordance with the Ordinances and Regulations laid down in the University Calendar, proceed to the degrees of Doctor of Philosophy or Master of Science of the University of Leeds after the prosecution of research work in the laboratories of the British Silk Research Association located within the University of Leeds and under the Director of that Association.

2. Graduates of Universities other than that of Leeds, and Leeds graduates without satisfactory previous training in Textile Industries or in Colour Chemistry and Dyeing wishing to come under this scheme will be required to attend approved courses in the Textile Industries Department of the University for not less than one year, or such courses in Colour Chemistry and Dyeing as may be deemed necessary. This prescribed attendance in the Departments of Textile Industries or Colour Chemistry and Dyeing may be either previous or subsequent to the period spent in research in the laboratories of the Silk Research Association, preferably in the first year.

3. All candidates for post-graduate degrees while carrying on their work in the laboratories of the Silk Research Association within the University will be under the immediate and direct control of the Director of the Silk Research Association, who must be approved by the University for this purpose.

4. All students proceeding to degrees through research work under this Scheme must be duly registered students of the University of Leeds, and, as such, shall be under the discipline of the University. They will be required to pay such tuition fees as may be determined by the University Council, and shall be entitled to all the privileges of the University Union, Library, &c., on payment of the appropriate fees.

DEPARTMENT OF LEATHER INDUSTRIES

COURSES OF INSTRUCTION

Leather Manufacture whilst still leaving great scope for skilled craftsmanship, becomes more and more a branch of applied chemistry, and its need of highly trained technologists steadily grows. It is to meet this need that the courses of study in the Department have been designed. In co-operation with other Departments of the University instruction is provided which gives the student a thorough training both in pure science and in the special technology of leather manufacture, as well as making ample provision for the practical study of manufacturing processes in the workshop and laboratories. The Department is primarily concerned with students who intend to take up careers either as technical managers or as technological chemists, and it is for such students that the Degree and Diploma courses outlined below have been drawn up. All students spend the greater portion of their first year in the study of general chemistry, physics, etc., thus laying the necessary foundation for the specialised study of leather technology which occupies an increasing proportion of the student's time as the course advances. A student wishing to become a fully qualified technological chemist competent to undertake industrial research continues his study of chemistry during the entire period of his training, whilst a student whose aims are more purely practical does not take the most advanced scientific instruction, but devotes more of his time to the detailed study of practical manufacture.

The classes in chemistry, physics, engineering, and bacteriology are held in the special Departments of the University devoted to these subjects. Students who for special reasons wish to study additional subjects such as economics or a foreign language may do so in the

appropriate Department, provided that the necessary permission is first obtained.

The Leather Industries Department provides a complete course of lectures and practical instruction in the special technology of leather manufacture. The aim in the first instance, is to familiarise students both by information in lectures and by practical handling of materials with the principles and details of the tanning process, and the reasons why particular modes of treatment produce particular effects. This knowledge once gained, the student is in a position to judge of the causes of defects, and the changes which it is necessary to make to prevent or remedy them, or to modify the leathers produced in such a way as may meet the requirements of the trade. Methods of chemical and microscopical analysis are taught and practised for determining the purity and value of the various materials employed, and for controlling the different stages of the tanning process. In the latter part of the course, students are allowed to attempt the practical production of leathers in which they are interested, and to study the smaller details of the processes. Particular attention is paid to leather dyeing and the manufacture of coloured leathers, and small quantities of almost all kinds of leather are produced of commercially saleable quality.

The Laboratories are open during the session from 9 a.m. to 1 p.m., and from 2 to 5 p.m. except on Wednesday and Saturday afternoons. No student is admitted to work until he has satisfied the Professor by examination or otherwise that he has a sufficient knowledge of general chemistry to enable him to profit by special work.

Experiments in actual leather manufacture are also carried on in such a way as to illustrate as far as possible the subject matter of the lectures, and to show the effect of variations in the processes. These are, when possible, supplemented by visits to works where the manufacture is carried on.

All the more important kinds of leather are made and finished in the experimental tannery and workshops

from the raw materials, with the assistance of the students ; and opportunities are given to those who are sufficiently advanced to work upon branches of manufacture in which they are specially interested, or to undertake scientific research in connexion with the trade.

EQUIPMENT

The Department is adequately equipped for practical work in leather manufacture, including dyeing, and offers in its laboratories ample facilities for the study of all methods of chemical analysis, etc. used in tannery control and technical research. The ground floor comprises a machine room equipped with all the most generally used machines, small model lime-yard and tan-yard, an annex fitted with drums and paddles for light leather tanning, etc., and a small control laboratory. The first floor comprises a large students' laboratory and two smaller laboratories, whilst on the second floor are drying rooms, museum and stores.

Directly adjoining the Department are the Procter Research Laboratories, erected in honour of the late Professor H. R. Procter, F.R.S., first head of the Department. These laboratories are, by the deed of foundation, devoted to research in the fundamental chemistry and physics of leather manufacture rather than to the study of problems of immediate technical interest. The Procter Laboratories are open to all qualified persons, irrespective of nationality, who wish to carry out such research.

Most of the ordinary chemicals and small quantities of skin and leather for experimental purposes will be furnished by the Department, but larger quantities required for special experiment or research may be charged to, or provided by, students at the discretion of the Professor. A certain amount of ordinary chemical apparatus must be purchased by the student, who will also be held accountable for breakage of apparatus belonging to the University.

SCHEMES OF STUDY

Courses are given below for :—

- I. Ordinary Degree of B.Sc.
- II. Degree of B.Sc. with Honours.
- III. University Diploma in Leather Manufacture.

Special courses may also be arranged by the Head of the Department to meet the needs of students who cannot afford the time necessary for a degree or diploma course.

The higher degrees of Master of Science (M.Sc.), Doctor of Philosophy (Ph.D.), and Doctor of Science (D.Sc.), will be awarded to graduates who satisfy the conditions stated in the Calendar in respect of these degrees.

The following schemes of study are arranged so as to give students the fullest advantage of the instruction provided by the University, and must generally be adhered to. Time is allowed, however, for taking up additional subjects, and special courses may be arranged for students who can satisfy the Vice-Chancellor and the Professor that they already have adequate knowledge of some of the subjects included. Some preliminary acquaintance with actual leather manufacture is very desirable before taking the University courses, and in no case is University training a complete substitute for practical experience in actual manufacture, though it usefully supplements it, and greatly lessens the time which is necessary to its acquirement.

Students are not admitted to advanced courses unless they have sufficient elementary knowledge to follow them with advantage.

Before beginning courses for Degrees, students must have passed the Matriculation Examination of the Joint Board of the Northern Universities, or obtained exemption therefrom ; matriculation however is not required from Diploma students.

Scheme I. Course for Ordinary B.Sc.

First Year

Introductory courses in Physics, Chemistry and Leather Manufacture, together with laboratory work in Physics and Chemistry.

An additional introductory subject, selected in consultation with the Professor, must also be studied during the first year of the course.

Second and Third Years

Preparation for Final examination in Chemistry, and Chemistry of Leather Manufacture.

First Year					Per week.
General Course of Chemistry (Chem. Intro.)	..				3 hrs.
Chemical Laboratory	..	..	..	..	12 "
Physics (Introductory course)	..	..	..	..	3 "
Physics Laboratory	..	..	..	..	3 "
Leather Manufacture (Introductory course) L. I					3 "
Additional subject	..	..	..	..	3 "

Second Year					Per week.
Chemistry F2 (Inorganic)	..	..	..	..	3 hrs.
Chemistry F3 (Organic)	..	..	..	..	3 "
Chemical Laboratory (Inorganic and Organic)					9 "
Materials used in Leather Manufacture (L. II)					2 "
Analytical Chemistry of Leather Manufacture (L. III)	..	..	..	..	2 "
Leather Laboratory	..	..	..	..	12 "
Bacteriology IX	..	..	..	..	3 "

Third Year

	Per week.
Chemistry FI (Inorganic)	3 hrs.
Principles and Methods of Leather Manufacture (L. VI)	3 ..
Microscopy and Bacteriology of Leather Manu- facture (L. V)	} 27 ..
Practical Leather Manufacture (L. IV) ..	
Leather Laboratory	

Scheme II. Course for B.Sc. with Honours**First Year**

The First Year course for the Ordinary degree.

Second Year

The second year course for the Ordinary degree.

Third Year

The third year course for the Ordinary degree, except that three hours per week less of laboratory work is required.

Fourth Year

Leather VII and Research in the Chemistry of Leather Manufacture. 24 hours per week laboratory work is required.

For the Special Honours Degree, students will ordinarily be required during the 3rd and 4th years of the course to attend classes in Subsidiary Physics, Physical Chemistry (H₃) and Chemical Physiology (V) without examination in these subjects for degree purposes.

A one year's course for Honours in Chemistry of Leather Manufacture can be arranged for students who have already graduated.

Scheme III. Course for Diploma in Leather Manufacture

This course, extending over three years, is suitable for those who intend to become technical managers in leather works, and is recommended to sons of tanners and others who require a practical knowledge of the science and technology of the industry, but are unable to take a degree course. Though not actually prescribed in the course, the study of a modern language, especially of German, is extremely important, and time is allowed for taking it as an extra subject.

Candidates for the Diploma are required :—

I. *During the Course* :—

- (a) To give satisfactory attendance upon the subjects which form part of the course of study.
- (b) To present themselves for any Departmental examinations that may be held in the subjects forming part of their course of study. The record of students at their Departmental examinations will be taken into account in deciding the results of the Diploma examination.
- (c) To make formal entry on the prescribed form, not later than March 1st of the last session of the course, and to pay at the same time the prescribed examination fee.

II. *At the end of the Course* :—

- (a) To reach a satisfactory standard in any Final examination which may be set.
- (b) To translate into English a passage of French or German technical literature. A foreign student who can show that he has received a good general education will be exempted from this language test.

A Diploma may be granted upon a degree course provided that the subjects studied for the degree include

those prescribed for the Diploma and that the other conditions are complied with.

A student producing evidence of adequate previous scientific or practical training, may upon application to the Senate, be exempted from a portion of the normal course and may qualify for the Diploma upon a shortened period of study.

First Year	Per week.
Introductory Course of Chemistry	3 hrs.
Chemical Laboratory	18 „
General Engineering (I)	5 „
Leather Manufacture, Introductory Course (L. I)	3 „

Second Year	Per week
Chemistry F3 (Organic)	3 hrs.
Materials used in Leather Manufacture (L. II)	2 „
Analytical Chemistry of Leather Manufacture (L. III)	2 „
Chemical Laboratory (Organic)	6 „
Leather Industries Laboratories and Workshops	18 „

Third Year	Per week
Principles and Methods of Leather Manufacture (L. VI)	3 hrs.
Technical Microscopy and Bacteriology (L. V) . .	
Leather Industries Laboratories and Workshops (including Leather IV)	20 „

LECTURE COURSES

L1. Introductory Leather Manufacture

Lectures and demonstrations on Mondays, Wednesdays, and Fridays, at 9 a.m.

An elementary general course on leather manufacture, dealing with the anatomy of hide, soaking, liming,

deliming, bating, etc., and the chief tanning processes, both vegetable and chrome. The course includes the elementary study of tanning materials, oils and fats, etc.

LII. Materials used in Leather Manufacture

Lectures on Tuesdays, and Thursdays at 11 a.m., and on Mondays, Wednesdays and Fridays at 12 noon, during the first term.

Anatomical structure of skin.

General chemistry of proteins, especially those occurring in hide.

Chemistry of technical water; water softening; influence of constituents on tannery processes.

Depilatories; deliming materials, natural and artificial bating materials.

Vegetable tanning materials; chemistry of tannins; synthetic tannins.

Mineral tanning materials. Special chemistry of chromium, iron, and aluminium compounds.

Soaps, oils, fats, and waxes.

Finishing materials, including starches, gums, mucilages, resins, albumens, glues, pigments, nitrocellulose and its solvents, etc.

LIII. Analytical Chemistry of Leather Manufacture

Lectures at same hours as I. II during the second and third terms.

The analytical investigation of waters; liming and deliming materials; lime liquors; tanning materials; extracts; tanyard liquors; gelatine; glue; soaps, oils, fats and waxes; sulphonated oils; mineral and vegetable tanned leathers; tannery effluents; etc., etc.

Methods of determination of pH.

These lectures will supplement the analytical textbooks in use in the Leather Industries Laboratories.

Liv. Leather Dyeing and Finishing

Tuesdays, 2-5 p.m. throughout the session.

A course of lectures dealing with the chemistry and modes of application of dyestuffs, and also practical work beginning with the dyeing of samples and proceeding to the colouring and finishing of whole skins.

Lv. Technical Microscopy, &c.

Lectures and practical work at times to be arranged.

The use of the microscope in the examination of skin and leather, and in the detection of adulterants, in connexion with work carried on in the laboratories. The bacteriology and mycology of leather manufacture, including some introduction to general technical bacteriology.

Students are encouraged to provide their own microscopes, but will be allowed to use those of the Department as far as they are available. For bacteriological work a $\frac{1}{12}$ th inch oil immersion objective and substage condenser is required ; but for the technical microscopy a simpler microscope will suffice.

Lvi. Principles and Methods of Leather Manufacture

Lectures on Mondays, Wednesdays and Fridays, at 11 a.m. throughout the session.

The preservation of raw hides and skins. Soaking, sweating, liming and other methods of depilation. Unhairing, fleshing and rounding. Deliming, bating, puering and drenching.

The grinding and leaching of tanning materials and the manufacture of extracts. The vegetable tanning process in general and the manufacture of sole, belting, harness

and dressing leathers in particular. Currying. Manufacture of moroccos and other fancy leathers. General principles of mineral tannages. Chrome one-bath and two-bath process, and the manufacture of box calf, glove kid, chrome sheep, etc.

Chrome sole and chrome leathers for technical purposes.

• Alum tannages and the manufacture of glove and clothing leathers.

Oil tannages. Chamois. Buff leather. Fat leathers. Crown and Helvetia leather.

Tannages by means of formaldehyde, quinone, and synthetic tannins.

Combination tannages and the manufacture of a variety of commercial leathers made by such combination processes.

Patent leather manufacture.

Leather dyeing and finishing.

Utilisation of bye-products and disposal of tannery waste.

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Lviii. Physics and Chemistry of Leather Manufacture

(Honours and M.Sc. Course).

Lectures throughout the session at hours to be arranged.

Surface tension and surface energy; adsorption; theory of emulsification and properties of technical emulsifiers.

Structure and properties of jellies.

Ionic equilibria; special theory of titration curves; hydrolysis; theory and determination of hydrogen ion activity (pH); applications in leather manufacture.

Chemistry of chromium salts and chrome liquors.

General and physical chemistry of proteins, including Donnan equilibrium, theory of swelling, etc.

Chemistry of vegetable tannins. •

Current theories of tanning.

Private Research

Persons prosecuting private industrial investigations under the supervision of the head of the department can be admitted as research students at the rate of £6 per month.

**SCHOLARSHIPS TENABLE IN THE LEATHER
INDUSTRIES DEPARTMENT**

For Scholarships tenable in the Leather Industries Department, see the Scholarships Prospectus.

DEPARTMENT OF AGRICULTURE

INTRODUCTION

The Courses given in the Department are designed to meet the needs of those who intend to become farmers, farm managers, bailiffs, valuers, teachers, or research workers in Agriculture or the Agricultural Sciences.

The Department is one of the places of professional education accepted, by the Surveyors' Institution, the effect of this recognition being that students who have taken an approved Course in Agriculture are admitted to the examinations of the Institution in Sub-Division 1 "chiefly Land Agency" without the usual period of training in a Land Agent's or Surveyor's office. Students preparing for the examination of the Surveyors' Institution are advised to attend the Diploma Course.

The Diploma Course is a suitable preparation for those who wish to take the examination for the National Diploma in Agriculture.

Whilst practical demonstrations on the farm are an essential part of the teaching, no facilities are provided by the University for acquiring that practical acquaintance with farm operations and the business of farming which is essential for all who intend to follow an agricultural career (with the exception perhaps of those who intend to become specialists in the agricultural sciences). It is essential, if full benefit is to be derived from the University Course, that a student obtain at least part of this training before entering the University, and it is a condition of entry to the Courses for the ordinary degree of B.Sc., for the degree of B.Sc. with Honours in Agriculture, and for the University Diploma in Agriculture, that candidates shall have had a practical training for at least 12 consecutive months on an approved farm.

The Professor of Agriculture will be glad to make appointments with prospective students and their parents in order to discuss with them the proposed

course of study, and where necessary, to advise as to a suitable farm on which practical training may be obtained.

The Department in all its activities works in close conjunction with the Yorkshire Council for Agricultural Education, a Joint Committee of the County Councils of the three Ridings of Yorkshire, on which the Ministry of Agriculture and the University are represented, and to which the County Councils have delegated their powers and duties in respect of the provision of technical education in agriculture and allied subjects. A Committee of the Agricultural Council known as the University Committee acts as the Advisory Committee on agricultural matters to the University. On behalf of the Agricultural Council the staff of the Department carry out a considerable amount of extension work in the County, details of which will be found in the Handbook of the Yorkshire Council for Agricultural Education, copies of which can be obtained on application to the Professor of Agriculture.

The Agricultural Council have recently purchased a property at Askham Bryan near York on which it is their intention to establish a residential Farm Institute, where, as soon as suitable educational buildings can be erected, short courses of a practical nature in Agriculture, and courses in Dairying, and Poultry-keeping will be provided. A poultry section with a service building including classroom accommodation has already been erected, and short courses in Poultry-keeping were started in January, 1931. The farm at Askham Bryan is used for experimental work and for demonstrations to students attending courses at the University.

The Department is recognised by the Ministry of Agriculture, under its scheme for the provision of technical advice to farmers, as the advisory centre for the Yorkshire province.

ADMISSION OF STUDENTS, ETC.

For conditions of admission of students, fees, etc., see the accompanying general prospectus of the University.

TERMS

Students taking courses for the degree keep University terms which are as follows:—

First Term:—Thursday, 1st October, 1931, to Saturday, 19th December, 1931.

Second Term:—Thursday, 7th January, 1932, to Saturday, 19th March, 1932.

Third Term:—Wednesday, 26th April, 1932, to Monday, 4th July, 1932.

The terms for Students taking the Diploma course are as follows:—

First Term:—Monday, 5th October, to Saturday, 19th December.

Second and Third Terms:—As above.

COURSES OF STUDY

The following courses are provided:—

I. *Courses for the degree of B.Sc.*

A. Course for the Ordinary degree of Bachelor of Science.

B. Courses for the degree of Bachelor of Science with Honours.

II. *Course for the University Diploma in Agriculture.**

Before beginning their respective courses students are required to consult the Professor of Agriculture with regard to their subjects, and also to discuss with him their previous experience of farm work.

Syllabuses of the courses of lectures included in the courses of study but not provided in the Department of Agriculture will be found in the prospectuses of the appropriate Departments.

I. **Courses for the Degree of B.Sc.**

A. **Course for the Ordinary Degree of B.Sc.**

Candidates will be required to have spent at least one complete year of 12 consecutive months on an approved farm before entering upon their course of

*This course covers most of the requirements for the examination for the National Diploma in Agriculture.

study. Exemption will only be granted in exceptional cases. Candidates must attend the following courses and pass the appropriate examinations :—

First Year.

Introductory Botany.

Introductory Chemistry.

together with *two* of the following :—

Economics I.

Introductory Geology.

Mathematics for Applied Science students.

Introductory Physics.

Introductory Zoology.

Students will be required to obtain a knowledge of Book-keeping during this year.

Second Year.

Agriculture, F1, F3 and F4.

Agricultural Botany and Bacteriology F3.

Agricultural Chemistry F2 or F3.

Economics I. (if not taken in 1st year)

Agricultural Economics F1.

Third Year.

Agriculture F2, F5 and F6.

Agricultural Chemistry F3 or F2.

Agricultural Economics F2.

Agricultural Zoology F1.

Veterinary Hygiene F1.

An optional course in Agricultural Engineering may be taken during the third year. Candidates will not be permitted to take this course unless they have already acquired an adequate knowledge of Mathematics.

B. Courses for the Degree of B.Sc. with Honours

The degree of B.Sc. with Honours may be taken in the Department of Agriculture in (a) Agriculture, (b) Agricultural Botany and Bacteriology, (c) Agricultural Chemistry, (d) Agricultural Economics, (e) Agricultural Zoology.

Candidates may be required to devote time during University vacations to their Honours work.

(a) Agriculture

Candidates for the degree of B.Sc. with Honours in Agriculture will be required to have spent at least one complete year on an approved farm before entering upon their course of study. Exemption will only be granted

in exceptional cases. They must attend the following courses and pass the appropriate examinations :—

First, Second and Third Years : as for the Ordinary Degree.

Fourth Year.

Agriculture H1.

Candidates will be required to carry out research work on some approved subject, and to present a report embodying the results of such work at the end of their fourth or fifth year.

(b) *Agricultural Botany and Bacteriology*

Candidates for the degree of B.Sc. with Honours in Agricultural Botany and Bacteriology must attend the following courses and pass the appropriate examinations :—

First Year.

Introductory Botany.

Introductory Chemistry.

Introductory Physics or Introductory Geology.

Introductory Zoology or Agricultural Zoology F1.

Second Year.

Agriculture F1.

Agricultural Botany and Bacteriology H1 and H2, or H3.

Agricultural Chemistry F1(a).

Botany Fa or Fb.

Third Year.

Agriculture F2 and F5.

Agricultural Botany and Bacteriology H3, or H1 and H2.

Botany Fb or Fa.

Fourth Year.

Candidates will be required to carry out research work on some approved subject, and to present a report embodying the results of such work at the end of their fourth or fifth year.

(c) *Agricultural Chemistry*

Candidates for the degree of B.Sc. with Honours in Agricultural Chemistry must attend the following courses and pass the appropriate examinations :—

First Year.

Introductory Botany.

Introductory Chemistry.

Introductory Physics.

Mathematics for Applied Science students.

Second Year.

Agriculture F1.
 Agricultural Botany and Bacteriology F3.
 Agricultural Chemistry F2.
 Chemistry F1, F2, and F3 (to be completed in third year).

Third Year.

Agriculture F2 and F5.
 Agricultural Chemistry F3.
 Chemistry (see second year).

Fourth Year.

Agricultural Chemistry H1.
 Mathematics (Statistics) S. and M.L.

(a) Agricultural Economics

Candidates for the degree of B.Sc. with Honours in Agricultural Economics must attend the following courses and pass the appropriate examinations:—

First Year.

Introductory Botany.
 Introductory Chemistry.
 Economics I.
 Mathematics for Applied Science Students.

Students will be required to obtain a knowledge of Book-keeping during this year.

Second Year.

Accountancy.
 Agriculture F1.
 Agricultural Botany and Bacteriology F2.
 Agricultural Chemistry F1 (modified).
 Agricultural Economics F1 (modified).
 Agricultural Economics H1.
 Commercial Law.
 Economics II(a) (adapted), II(e) and II(f).

Third Year.

Agriculture F2 and F5.
 Agricultural Economics H2 and H3.
 Commercial Law.
 Economic Geography.
 Economics II(b) and II(d).
 Mathematics (Statistics) S. and M.L.

Fourth Year.

Candidates will be required to make a special study of one or more branches of Agricultural Economics, and to submit a report thereon at the end of their fourth or fifth year.

(c) Agricultural Zoology

Candidates for the degree of B.Sc. with Honours in Agricultural Zoology must attend the following courses and pass the appropriate examinations :—

First Year.

Introductory Botany.
Introductory Chemistry.
Introductory Physics.
Introductory Zoology.

Second Year.

Agriculture F1.
Agricultural Botany and Bacteriology F3.
Agricultural Zoology F1
Zoology Fa or Fb.

Third Year.

Agricultural Botany and Bacteriology H3 (a) and (b).
Agricultural Chemistry F1(a) (continued in fourth year).
Agricultural Zoology H1.
Physiology I. (continued in fourth year).
Veterinary Hygiene F1.
Zoology F(b) or F(a).

Fourth Year.

Agriculture F2 and F5.
Agricultural Chemistry F1(a) (continued).
Agricultural Zoology H1 (continued).
Physiology I. (continued).

Candidates will be required to carry out research work on some approved subject and to present a report embodying the results of such work at the end of their fourth or fifth year.

II. Course for the University Diploma in Agriculture

This Course covers most of the requirements for the Examination for the National Diploma in Agriculture,* awarded jointly by the Royal Agricultural Society of England and the Highland and Agricultural Society of Scotland. Attendance during the Summer (Third) Term is required only in the first year of study, and

* The Regulations and Syllabus for this Examination may be obtained from The Secretary, N.D.A. Examination Board, 16, Bedford Square, London, W.C.

farmers' sons are thus able to obtain a full course of instruction between harvest and seed time, and, except in the first year, to devote the spring, summer and harvest time to practical work at home.

Students preparing for the examination of the Surveyors' Institution are advised to attend the Diploma Course.

Regulations

Applicants for the Diploma Course are required to satisfy the Head of the Department :—

- (1) that they have worked for at least twelve consecutive months on an approved farm and have an adequate knowledge of practical farming ;
- (2) that their general educational attainments are adequate.

Candidates for the Diploma are required :—

- (a) to give satisfactory attendance in the subjects which form part of the course of study ;
- (b) to present themselves for the Departmental examinations in the subjects forming a part of their course of study ; (The results of the Departmental examinations will be taken into account along with those of the Diploma examination.)
- (c) to make formal entry, on the prescribed form, not later than 15th January of the last session of the Course and to pay at the same time the prescribed examination fee ;
- (d) to satisfy the Examiners in the subjects subsidiary to Agriculture, by the Departmental examinations held during and at the end of the Course ;
- (e) to pass the Diploma examination in Agriculture held at the end of the Course.

A student producing evidence of adequate previous scientific or practical training may, upon application to the Senate, be exempted from a portion of the normal course, and may qualify for the Diploma upon a shortened period of study.

Course of Study

First Year (three terms).

Hours per week.

Agriculture	Occasional Farm Classes.
Agricultural Botany	4 (6 in Summer Term).
Agricultural Chemistry	7 (6 in Summer Term).
Agricultural Economics (including Book-keeping)	3.
Agricultural Engineering and Sur- veying.	2 (2nd and 3rd Terms only). 6 hours field work (3rd Term only).
Agricultural Zoology	4 (3rd Term only).
Geology	5 (1st and 2nd Terms only).
Physics and Mechanics	6 (1st and 2nd Terms only).

Second Year (two Winter terms).

Agriculture. F1.	6 (including 3 hours Farm Class).
Agricultural Botany	5
Agricultural Chemistry	5
Agricultural Economics (including Book-keeping)	3
Agricultural Engineering	1
Agricultural Zoology	4
Veterinary Hygiene. F1... ..	4

Third Year (two Winter terms).

Agriculture (including Dairy Husbandry). F2 and F5.	10 (including 3 hours Farm Class).
Agricultural Chemistry	7
Agricultural Economics	3
Agricultural Engineering	2 (and Occasional Farm Classes).
Horticulture	1 (1st Term only).
Poultry Husbandry	2 (1st Term only).

Farm Classes

All students taking a full course in Agriculture will be required to attend farm classes as arranged and to pay their travelling expenses in connection with them.

Chemical, Botanical, and Zoological Laboratories

Degree and Diploma Courses

Students must pay at the beginning of each session a deposit of 20/- to cover the cost of replacing broken apparatus, damage to microscopes, etc. This deposit will be paid with the Tuition Fee and will be repaid at the end of the session after deducting cost of breakages, etc.

Research and Laboratory Work

The laboratories of the Department (Chemical, Botanical and Zoological) are open to those students prosecuting Research, or who require special practical training. The fees are as stated in the University Calendar.

TIME TABLES

Time tables will be posted on the Departmental Notice Boards. Students are expected to acquaint themselves with these and any alterations in them which may be posted up from time to time.

SYLLABUSES

For Syllabuses of Courses in other Departments included in the courses of study for the degree of B.Sc., see prospectuses of the appropriate Departments.

Agriculture

First and Second Year Diploma Course

SOILS, MANURES, ETC.

First and Second Terms—3 Lectures a week and Demonstration Classes as arranged.

Agriculture and its relation to the sciences.

Soils.—Their nature, functions, origin, and wasting. Texture and general characteristics. Soil temperature. Soil water and its conservation. Relations between the soil and the plant. Composition of soils; potential and available plant food.

Characteristics, classification, and distribution of soils. Chief types of Yorkshire soils.

Farm drainage. Irrigation. Sewage farms. Warping, claying, marling, chalking, liming, paring and burning, clay-burning.

Tillage operations. Ploughing; specific results of ploughing; times and methods of ploughing. Autumn and Spring cultivation. Surface tillage. Preparation of seed-bed for different crops on various classes of soil.

Steam cultivation. Use of Tractors.

Manures.—Characteristics of the various nitrogenous, phosphatic, and potassic manures in common use. Conditions affecting their successful application. Their specific effects on the various farm crops. Farm-yard manure; its production, variation, preservation, and application. Liquid manure. Composts. Green manuring.

Rotations.—The rotation of crops. Arrangements of cropping according to the system of farming adopted.

Seeds, Grasses, and Pastures.—Common grasses and clovers, their suitability for different soils and local conditions. Laying down land to permanent pasture. "Seeds" mixtures. Treatment of new grass land. Management of old-established grass. Deterioration of grass land; its causes and remedies. Hay-making. Silage and the system of ensilage.

DEMONSTRATION CLASSES.

Stock, stock-feeding. Estimation of weights of crops and animals. Pastures and pasture plants. Practical examination of seeds, manures, and feeding stuffs.

Seasonable operations will be closely followed; different systems will, so far as practicable, be illustrated, and the reasons for the variations explained.

F2 and Third Year Diploma Course

DAIRY HUSBANDRY.

First and Second Terms. 2 Lectures a week and demonstration classes as arranged.

Systems of Dairying.—Milk-selling, butter-making, and cheese-making farms; comparison of different types and returns from the different systems. Selection of a dairy farm.

Dairy Cattle.—Points of a good dairy cow. Breeds; Dairy and Dual-purpose types. Suitability of breed for system of dairying practised.

General management.—(a) Breeding: Establishment of dairy herd. Milk recording and value of milk records. Stock bull. Rearing of calves and young stock.

(b) Feeding: Constituents of feeding stuffs. Home-grown and purchased foods. Feeding standards: Balancing of rations. Feeding practice.

(c) Housing.

Milk.—Composition. Factors influencing yield and quality. Production of clean milk: Grades of milk. Processing of milk: Milk distribution and town supplies. Taints and other faults in milk and their prevention.

Cream and Butter.—Methods of separation ; the mechanical separator. Marketing of cream. Ripening of cream for butter-making ; use and propagation of "starters." Manufacture of butter. Preservation of butter. Butter faults and their prevention.

Cheese.—Process of cheese-making. Manufacture of rennet and annatto. The acidimeter and acidity tests. Types of cheese ; hard-pressed, soft, and blue-veined cheese. Ripening of cheese. Faults in market cheese.

General.—Creamery system. Manufacture of dairy produce on large scale. Legislation affecting dairying and dairy produce. Stocking of dairy farms.

F3

MACHINERY AND BUILDING CONSTRUCTION.

First Term.—Two Lectures a week and occasional demonstration classes.

Second Term.—One Lecture a week.

For syllabus see *Agricultural Engineering* Parts II and IV.

F4

LAND SURVEYING AND LEVELLING

Second and Third Terms—2 Lectures a week ; Third Term.—Field classes as arranged.

For Syllabus see *Agricultural Engineering* Part I.

F5 and Third Year Diploma Course

CROPS, LIVE STOCK, ETC.

First and Second Terms—5 Lectures a week and farm classes as arranged. .

Crops and Cropping.—Characteristics, habits, cultural requirements and management of the various arable land crops. Variation in yield, composition and quality according to local conditions and treatment. Factors to be considered in the selection of varieties. Costs of production of the different crops. Agricultural statistics.

Farm Management.—Management of farm labour. The different systems of farming and farm management.

Taking and Stocking a Farm.—Considerations involved in the valuation and taking of farms. Times of entry. Yearly and other tenancies. Leases and agreements. Acts of Parliament affecting landlord and tenant. The tenant's capital and its distribution. Live and dead stock required. Valuation of tenant right and of live and dead stock.

Foods and Feeding Stuffs.—Composition and general character. Process of digestion. Function of products of digestion. Comparative value of foods. Selection, preparation and use of foods for different kinds of live stock. Feeding standards. Food rations.

Live Stock.—Origin, history and description of the different breeds of horses, cattle, sheep, and pigs in the British Isles. Relation between districts and breeds. Comparative powers of adaptation. Essential points in size, conformation, and character. Standards of perfection. Principles involved in improvement and early maturity. Fixation and preservation of desirable qualities. Advantages and danger of pedigree breeding. Cross breeding. Live Stock Improvement Scheme.

Accommodation for farm stock.

Horses.—Working horses. Breeding mares. Gestation, foaling, weaning, and rearing. Breaking and preparation for sale. Cost of rearing work horses.

Cattle.—Management of cows. Calving. Rearing of calves and young cattle. Treatment of fattening cattle. Cost of producing winter and summer beef and milk.

Sheep.—Special features of sheep farming. Systems of flock management. Permanent and temporary flocks. The year's work on a sheep farm; lambing, weaning, rearing, fattening. Desirable qualities of wool. Costs of producing fat lamb and mutton.

Pigs.—Selection of breeds. Out-door and in-door management. Breeding sows. Farrowing, weaning; rearing, fattening. Costs of pork and bacon production.

Buying and selling of stock.

DEMONSTRATION CLASSES.

The classes will be on the same lines as for the F1 course.

F6

Third Term only.—A special course of lectures dealing with recent research work in Agriculture.

H1

•A course of Advanced Lectures specially designed for Honours students.

Agricultural Botany and Bacteriology

F1 and First Year Diploma Course

First and Second Terms—4 hours a week. Third Term.—6 hours a week.

Section 1.—The functions of plants in relation to their structure. Germination, growth, assimilation and elaboration of food materials, respiration, transpiration, storage of food, fertilisation and reproduction. The structure of stems, roots, flowers, and seeds. Forms and modifications of various parts of the plant, and the adaptation of plants to their surroundings.

Section 2.—The principles of classification and systematic Botany.

Section 3.—The structure of a grass. The recognition of grasses by their vegetative, floral, and seed characters.

(Sections 2 and 3 are closely correlated with the field excursions ; see below).

Section 4.—A study of the life cycle and habit of growth of the following types of Fungi :—Pythium, Mucor, Erysiphe, Sphaerotheca, Eurotium, Penicillium, Yeast, Agaricus. Parasites and Saprophytes.

The types mentioned form the basis for the study of plant diseases in the F2 course.

Excursions.—Botanical excursions are made on one afternoon each alternate week during the Summer term.

F2 and Second Year Diploma Course

First and Second Terms.—5 hours a week.

The morphological and physiological characters of flowering plants with special reference to plants of agricultural importance. The constitution of the flora of meadows and pastures. "Seeds" mixtures for temporary leys and permanent grass land. The recognition of impurities in seed samples. Weeds in farm crops and methods for their eradication.

The more important Fungoid diseases of agricultural importance, preventive and remedial measures. The elements of plant breeding. The outlines of Soil and Dairy Bacteriology.

F3 Course

Two Lectures and 3 hours laboratory work a week.

The detailed structure of a Wheat plant as a type of the Gramineae. Differences in structure between Wheat, Barley, Oats, and Rye. Varieties of cereals and their outstanding characteristics.

The structure of a grass and the recognition of grasses by their vegetative and floral characters. The constitution of the flora of grassland, and the changes produced by manurial treatment. The Botanical characters of the various Farm crops. Varieties of Potatoes, Turnips, Mangels, &c., Clovers and "Seeds" mixtures. Weeds of arable and grass land and their eradication. The recognition of impurities in seed samples. Plant breeding.

A study of the more important Fungoid diseases of agricultural importance. The outlines of Soil and Dairy Bacteriology.

Courses H1 and H2 and Course H3 are taken in alternate years.

H1 Course

3 hours a week.

Morphology.—This course is similar to the F3 course excepting that Plant Diseases and Bacteriology are omitted and the remaining sections are taken in fuller detail.

H2 Course

3 hours a week.

Mycology.—A detailed study of the life history and physiological characteristics of fungoid pests attacking farm and garden crops. The incidence and spread of parasitic fungi. Epidemic diseases. The relation of temperature, rainfall, and soil conditions to plant diseases. Degrees of Parasitism. Modes of parasitism. Enzymes, Immunity and Resistance to disease. Cultural methods. Single spore cultures. Experimental methods of dealing with plant-disease problems. Bacterial diseases of plants. The prevention and eradication of plant diseases.

H3 Course

First and Second Terms.—6 hours a week.

(a) *General Bacteriology*.—The elements of Bacteriological technique including the preparation of media, staining and counterstaining, and isolation of pure cultures. The morphological and physiological characteristics of Bacteria. Methods of identification. The activities of micro-organisms.

(b) *Soil Bacteriology*.—Estimation of number of Bacteria in the soil.

Variable soil counts.

Physiological groups and the isolation of one or more types from each of the following :—Putrefactive, Urea-splitting, Nitrifying, De-nitrifying, Nitrogen-fixers, Cellulose-destroying, Iron and Sulphur Bacteria. The Carbon and Nitrogen cycles.

Soil reaction in relation to its flora.

Manure organisms. Partial sterilisation.

(c) *Dairy Bacteriology*.—The Bacterial content of milk. Sources of contamination. Milk counts. The activities

of bacteria in milk. How to produce "clean" milk. Keeping qualities of milk. Pasteurization. Milk faults. Biological milk tests. Butter organisms and their effect on quality and flavour. Rancidity. Use of starters. The germ content of cheese. Origin of cheese organisms and their action on ripening. Normal and abnormal ripening. Effect of temperature.

Laboratory work, supplementary to that included in the H1, H2, and H3 courses should be carried out by students and will be arranged for.,

H4 Course

(Optional to students in the fourth year).

One hour per week during the first and second terms with practical demonstrations as arranged.

Plant Genetics.—Mendel's laws of Inheritance. Unit characters. Factor hypothesis. Dominance. Segregation. Independent Assortment. The expression and interaction of factors. Linkage. The chromosome theory of inheritance. Quantitative characters and their inheritance. Biometry. The types and causes of variation. The Pure Line Theory. Plant breeding—its theoretical basis and technique—the economic aspect. Marketing of improved plants.

Agricultural Chemistry

F1 and Third Year Diploma Course

First and Second Terms.—4 Lectures and 3 hours laboratory work a week.*

SECTION (a)

Syllabus similar to F2 course but lectures adapted to the requirements of Diploma students.

SECTION (b)

Syllabus similar to F3 course, but lectures adapted to the requirements of Diploma Students.

* Students taking Honours in Agricultural Economics will not take the laboratory work.

F2 Course

Two Lectures and 6 hours laboratory work a week.

The Plant.—The ultimate and proximate constituents of plants. Photosynthesis. Translocation. Storage. Transpiration. Respiration.

The Soil.—The Literature of Soil Science. Formation of soils. Subsoils. The structural basis of mineral soils. Organic matter of soils. Soil colloids. Soil water. Soil air. Soil temperature. The absorptive power of soils; the reaction and "sourness" of soils. Soil potassium. Soil phosphorus. The other mineral elements of the soil. Availability of mineral plant food. Soil nitrogen. Bio-chemistry of soils. Interpretation of soil analyses. Classification of soils. Soil surveys. Soil chemistry and crop production.

Manures.—Farmyard manure. Production, composition, commercial value, characteristic and secondary effects of fertilizers, lime, etc. Various by-products and waste materials. The Fertilizers and Feeding Stuffs Act. The planning of manurial trials and the interpretation of their results.

Crops.—Composition of farm crops. Crop residues. The manuring of crops. Rotation of crops.

F3 Course

Two Lectures and 6 hours laboratory work a week.

The Animal.—The Literature of Animal Nutrition and Dairy Science. Composition of the animal body. Digestion. Circulation. Respiration. Excretion.

The Nutrition of Animals.—Digestibility experiments. Metabolism. Comparative slaughter tests. Calorimetry. Gross, metabolizable, and net energy. Carbon, nitrogen and energy balances. Critical temperature. Specific dynamic action.

Rations.—Maintenance and production requirements. Net energy values and starch equivalents. Feeding standards. Calculations of rations.

Foodstuffs.—Classification, manufacture, and composition of foods; monetary value of foods. Manurial values. Fertilizers and Feeding Stuffs Act.

Insecticides, Fungicides, Sheep Dips, etc.

Dairy Products.—Full chemical and physical description of milk; the variations in its composition and the factors influencing this. Preservation, and adulteration of milk. Colostrum. Cream. Chemistry of cheese-making and cheese ripening. Whey. Theory of butter manufacture. Composition and adulteration of butter. Butter milk.

HI Course

First and Second Terms.—Lectures and laboratory work dealing with some recent developments and methods of research in Agricultural Chemistry.

First Year Diploma Course

First and Second Terms.—4 Lectures and 3 hours laboratory work a week.

Third Term.—2 Lectures and 4 hours laboratory work a week.

The Principles of Chemistry and their practical application with special reference to Agriculture.

Second Year Diploma Course

First and Second Terms.—2 Lectures and 3 hours laboratory work a week.

A continuation of first year Course.

Agricultural Economics

FI Course

Two Lectures a week.

(a) *Cost Accounting.*—General Principles and Methods. Objects and difficulties. Determination of Labour costs, Man, Horse, and Tractor. Overhead and prime costs.

Analysis of costs of various farm operations. Determination of Gross and Net or Social Output. Distribution of Net or Social Output. Cost of production of crops. Cost of rearing and fattening livestock. Analysis of milk records and rations, and the cost of milk and egg production. Interpretation of results from cost and financial accounts, and their use as a guide to efficient farming, and farm management.

(b) *History of Agriculture*.—The influence of the past on modern farming. Domesday Book and its significance. Manorial system of farming, and causes of its decay. Enclosure Movements, with special reference to Yorkshire. Progress in methods of farming in the 17th and 18th centuries. The Napoleonic Wars and depression. The Corn Laws. History of agricultural labour and the Poor Law System. History of Tithe, Land Tax, Local Rates, Income Tax and forms of Tenure. Recent History. Evolution of agricultural technique. Prosperity and depression, their causes and effects. The State and Agriculture.

F2 Course

Two Lectures a week.

(a) *Agricultural Production*.—Land supply and utilisation. Rent. Conditions of tenure. Trend of supply of agricultural labour. Organisation of labour on the farm. Capital and its application. Relation of capital to labour. Combination of the factors of production. Limiting factors. Joint and supplementary products. Specialisation of production. Nation's food supply, home and imported. The State in relation to agriculture.

(b) *Marketing*.—Methods of marketing agricultural products. Services performed by producers and by various middlemen. Assembling, transport, storage, grading, processing, credit, advertising, delivery to consumers. Markets and fairs; exchanges; pooling; collective bargaining; co-operative marketing. Types of Consumers' Co-operation. Producers' Societies. Marketing and Co-operation in U.S.A., Denmark, Canada, etc.

(c) *Credit*.—Need for credit. Long and short term credit. Provision of agricultural credit at home and abroad.

H1 Course

Two Lectures a week.

Study of the History of Agriculture at home and abroad.

H2 Course

A detailed study of co-operation and marketing in England and other countries.

H3 Course

Reading and research from original sources, under supervision.

Diploma Course

First Year.—2 lectures and one Tutorial class per week.

Book-keeping.—General Principles of Book-keeping. Single and double entry systems. Financial accounts. Analytical Cash Book. Ledger and three column Cash Book. Journal, Purchase and Sales Book. Preparation of Profit and Loss Account, Capital Account and Balance Sheet. Partnership Accounts. Income Tax. Preparation of Income Tax Returns. Claims and allowances.

Second Year.—3 lectures per week.

For Syllabus see F1.

Third Year.—3 lectures per week.

For Syllabus see F2.

Agricultural Engineering and Surveying

PART I. LAND SURVEYING AND LEVELLING

Agriculture F4 and First Year Diploma Course

Second Term.—Two lectures a week.

Third Term.—Two lectures and 2 afternoons a week.

Surveying.—Chain surveys. Principles involved. Chains. Arrangement of lines and method of proving the work. Sources of error and precautions to be adopted. Chaining past obstacles. The field book. Scales. Plotting the survey. Calculating areas from the field notes by give-and-take lines; by the computing scale; and by the planimeter. Surveys in which the relative positions of the lines are fixed by angles. Instruments required, the Theodolite, Box Sextant, Prismatic Compass, Graduated Cross Staff. The Vernier, its construction and use. Elementary Trigonometry. Determination of Heights and Distances. Proving the accuracy of the angles taken. The Plane Table.

The maps of the Ordnance Survey, their value to the land agent and farmer.

Levelling.—Various types of Levelling instruments and staffs. Bench marks. Booking the readings and working out the reduced levels. Checking the level book. Proving the field work. Sections, their use for road making and similar purposes. Cross sections. Quantities of Earth Work. Contours. Curvature and refraction

During this course a farm or estate survey, involving the use of all the instruments mentioned above, is made and levels are also taken; the plan and sections are plotted in the drawing office as the work in the field proceeds.

PART II. BUILDING CONSTRUCTION

Agriculture F3 and Second Year Diploma Course

First and Second Terms.—One lecture a week.

Homesteads for different classes of farms. Design and arrangement of farm buildings with a view to economy of construction and farm labour. Selection of site. Foundations. Materials and details of construction. Lighting. Ventilation. Drainage. Water supply. Alterations. Temporary buildings. Repairs. Dimensions of cow-stalls, stables, etc. Approximate costs.

PART III. ENGINEERING**Third Year Diploma Course**

First Term.—One lecture a week.

Second Term.—Two lectures a week.

Applied Mechanics.—The Principle of Work. Machines. Friction. Stress, Strain, and Elasticity. Factor of Safety. Stresses in Simple Structures.

Power Transmission.—Pulleys and belting. Strength of Belts. Toothed gearing. Shafting and bearings. Lubrication. Chains. Lifting appliances.

Boilers.—Cornish, Lancashire, Vertical and Tubular. Principles, construction, and management. Fittings.

Steam, Gas, Oil, and Petrol Engines.—Principles and construction. Testing. Determination of I.H.P. and B.H.P. Mechanical Efficiency. Dynamometers. Consumption of fuel and water. Concrete foundations.

Hydraulics.—Flow of water through pipes and channels. Measurement of quantity of water flowing in a stream. Power available from falling water. Water wheels, turbines, pressure motors. Pumps.

Windmills.—Construction and power.

Electricity.—The uses of Electricity on the farm. Units. Lighting. Fuses. Switches. Motors. Dynamos. Power.

Costs and Working Expenses.

PART IV. MACHINERY**Agriculture F3 and Third Year Diploma Course**

First Term.—One lecture a week and occasional demonstration classes.

Implements for the preparation of the soil—for planting and harvesting crops. Machinery for the preparation of food—for the dairy. General principles underlying their construction and mode of action—prices.

Agricultural Geology

First Year Diploma Course

First and Second Terms.—2 Lectures and 3 hours laboratory work a week.

Scope of the science. The composition and physical characters of the common rock-forming minerals. Classification of rocks according to (a) their mode of origin, and (b) chemical composition. Climate. Rain-fall. Temperature. Winds. Construction and interpretation of weather charts. Examination of meteorological instruments in use at the Cecil Duncombe Observatory.

Denudation, transport, and accumulation. Forms of stratification. The subdivision of stratified rocks. Economic products of the chief formations. The nature and origin of the drift deposits. Their importance in relation to the soils of the North of England. The soils of the Warp lands and the Yorkshire Wolds.

The disintegration of rocks and the formation of soils. Geological maps, their interpretation and use. British rainfall, its measurement and variation. Storage of subterranean waters. Water supply from springs and deep and shallow wells. Application of geological knowledge to the selection of sites for roads, bridges, etc.

Agricultural Zoology

First and Second Year Diploma Course

First and Second Terms :—4 hours a week.

Structure and life-history of insects. Spiders, mites, and ticks. Centipedes and millepedes. Worms. Slugs and snails. Remedial and preventive measures. Sprays and fumigants. Natural checks to the increase of insects, birds, small mammals, etc.

HI Course

Third Year, Third Term ; Fourth Year, Second and Third Terms.—An extended course in entomology and helminthology ; protozoa of the soil ; pathogenic protozoa.

First Year Diploma Course

Third Term only :—4 hours a week.

Elementary anatomy of the higher animals. The use and mechanism of special organs. Drawing. The use of the microscope.

Horticulture**Third Year Diploma Course**

First Term only.—1 Lecture a week.

The Soil.—Cultivation of garden soils. Winter and Summer methods. Soil fertility.

Manures and Manuring.—Use of manures and their application in the garden. Lime and liming. Effect of lime on soils.

Propagation of Plants.—By cuttings, by layers, by runners, by grafting and budding.

Vegetable Crops.—Cropping plans. Rotation of crops. Outline cultivation of potatoes, "greens" root crops, and peas and beans. Miscellaneous vegetables.

Fruit Culture.—Outline cultivation of apples, pears and bush fruits. Planting, manuring and pruning. Selection of varieties.

Plant Diseases and Pests.—Studies of some common pests of vegetables and fruit trees.

Plant Physiology and Horticulture

(Subsidiary)

Plant Physiology and Horticulture may be taken as a subsidiary subject for the degree of B.Sc. in pure science.

The course of instruction will consist of four hours devoted to lectures, demonstrations and laboratory work, and three hours practical gardening per week. The course will extend over two Sessions. The lectures and laboratory work treat mainly of Plant Physiology as a Theory of Gardening, and are given round the following syllabus :—

The seed in dormancy and germination. Seed testing.

The growth of a plant from seedling to maturity : organisation into shoot and root : the conception of annual, biennial and perennial. Modifications of plant structure—bulbs and corms.

Photosynthesis, respiration and water loss: the general metabolism of plants.

The differences in structure between herbaceous and woody plants.

The physiological anatomy of the plant as it elucidates growth in extension and girth, the intake of water and the seasonal activities of trees. The theory of manuring. Vegetative propagation.

Sexual reproduction in plants. The production of new varieties.

The control of bacterial, fungus and virus diseases: the eradication of insect pests.

• Horticultural building and engineering: land surveying.

Horticultural economics: marketing.

The practical work will be carried out mainly on the University's ground at Weetwood, which is reached by a short car ride from University Road. The syllabus will include:—

The soil and its cultivation. The practice of manuring. Preparation of the seed bed. Plant propagation. Fruit and vegetable cultivation. Flower cultivation: rockeries, shrubberies, lawns. The practice of pest and disease control. Weeds and their eradication. The study of weather. Seed harvesting. Greenhouse work: general, tomatoes and cucumbers, indoor fruit. Frame management.

Physics and Mechanics

First Year Diploma Course

First and Second Terms.—2 Lectures, one tutorial class, and 3 hours laboratory work a week.

Hydrostatics.—General properties of matter. Density, Specific gravity. Principles of Archimedes. Hydrometry. Fluid pressure. Atmospheric pressure and Boyle's Law.

Heat.—Thermometry. Expansion of solids, liquids, and gases. Charle's Law. Quantity of heat. Specific heat. Calorimetry. Change of state. Latent heat. Properties of vapours. Hygrometry. • Transference of heat. Mechanical equivalent of heat.

Mechanics.—Motion. Force. Newton's laws of motion. Energy. Work and power. Moments. Resolution of forces. Inclined planes. General conditions of equilibrium. Centre of gravity.

Magnetism and Electricity.—Properties of magnets. Magnetic induction. Molecular theory of magnetism. Electro-magnetism. Voltaic cells. Electrolysis. Ohms Law. Thermo-electricity. Electro-magnetic induction.

Poultry Husbandry

Third Year Diploma Course

First Term only.—2 Lectures a week.

Poultry (Fowls, Ducks, Geese, Turkeys) production in Britain. Imports of eggs and poultry.

Origin and development of the various breeds and varieties of poultry with their classification and characteristics. Systems of poultry-keeping.

Principles and practice of poultry breeding. Incubation and rearing by natural and artificial methods with estimates of cost.

Housing and Hygiene. Types of Poultry houses. Construction and Cost.

Foods and feeding practice. Egg-production. Table poultry production.

Marketing of Eggs and Poultry. Preservation of eggs.

Diseases of poultry, their prevention and treatment. Internal and external parasites of poultry.

Legislation and Orders affecting poultry-keepers.

Veterinary Hygiene

First and Second Year Diploma Course

First and Second Terms.—4 Lectures a week and occasional Demonstration classes.

Anatomy and physiology of farm animals. Recognition of diseases affecting farm animals. Means of preventing disease, including ventilation, drainage, judicious feeding, grooming. Nature of heredity. Contagion and infection.

Demonstration Classes.

Conformation, handling, etc. ; the general application of Veterinary Hygiene to Farm Animals.

SCHOLARSHIPS AND EXHIBITIONS TENABLE IN THE DEPARTMENT OF AGRICULTURE

A. Awarded by the County Councils of the Three Ridings of Yorkshire

1. *County Major, Senior, and Technological Scholarships.*

These Scholarships are available for the Courses for the Degree of Bachelor of Science. They are awarded only on the result of competitive examinations. Technological Scholarships are not usually awarded to those who intend to follow the teaching profession. Full particulars can be obtained from the respective County Offices (see Section 2 below).

2. *Exhibitions for Farmers' Sons and Daughters :*

The Exhibitions cover the tuition fee at the University, and, in addition, contribute towards the maintenance of the student. Applicants are required to satisfy the authorities of their capacity to take advantage of the instruction and may be required to pass a qualifying examination. The Exhibitions are primarily intended for the Diploma Course in Agriculture, but may also be made available for the Degree Courses.

Application for these Exhibitions must be made by candidates in the East Riding, to the Clerk to the Council, County Hall, Beverley; by candidates in the North Riding, to the Secretary, Education Department, County Hall, Northallerton; and by candidates in the West Riding to the Education Officer County Hall, Wakefield.

B. Awarded by Other Authorities

The Ministry of Agriculture and Fisheries offer Scholarships covering tuition fees and maintenance for three-year, two-year, one-year or shorter courses, for the sons and daughters of agricultural workmen and others.

The scholarships are of three types, namely :—

Junior Scholarships.

Extended Junior Scholarships.

Senior Scholarships.

The Senior Scholarships can be made tenable at the University. Full particulars of the Scholarships may be obtained on application to the Secretary, Ministry of Agriculture and Fisheries, 10, Whitehall Place, S.W.1.

Technological and other Scholarships, available for Courses in the Department, are offered by the Education Committees of some of the County Boroughs in Yorkshire.

EXTENSION WORK IN THE COUNTY

Full particulars of the work undertaken on behalf of the County Councils of the three Ridings of Yorkshire will be found in the Handbook of the Yorkshire Council for Agricultural Education which may be obtained on application to the respective County Offices or to the Professor of Agriculture, The University, Leeds.

The work includes :—

District Classes in Agriculture and other subjects.

Courses of Lectures on a variety of different subjects connected with Agriculture, and rural life.

Demonstrations and Experiments : at Askam Bryan Farm ; at the Soiling Farm, Rawcliffe ; at the Fruit Station, Osgodby ; and at various private farms in the County.

Technical advice to farmers and others, and the investigation of local problems.

The examination of specimens and samples for farmers, including chemical and bacteriological examination of milk.

DEGREES IN MEDICINE AND SURGERY

The degrees in Medicine and Surgery shall be :

Ordinances

Bachelor of Medicine and Bachelor of Surgery

(M.B. and Ch.B.)

Doctor of Medicine (M.D.)

Master of Surgery (Ch.M.)

Doctor of Philosophy (Ph.D.)

1. Candidates for the degrees of Bachelor of Medicine and of Surgery are required to present certificates showing that they will have attained the age of twenty-one years on the day of graduation, and that they have attended courses of instruction approved by the University extending over not less than five years, two of such years at least having been passed in the University.

2. Candidates for the degrees of Bachelor of Medicine and of Surgery are required to satisfy the Examiners in the several subjects of the following examinations, entitled respectively :

The Matriculation examination, or such other examination as may have been recognised by the Joint Matriculation Board* of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham in its stead.

The First examination.

The Second examination.

The Final examination.

Candidates for a degree in the Faculty of Medicine (M.B., Ch.B., or B.Ch.D.), except in cases specially approved by the Senate, are required to have passed in Mathematics as a subject of the Matriculation examination. Regulations

General Attendance

During the first four years, a year of medical study must include attendance upon at least *two* of the prescribed courses of lectures or laboratory work, or one such

*Joint Matriculation Board, 215, Oxford Road, Manchester.

course and hospital practice, in each term, if that year is to count as part of the degree course. In the fifth year clinical work will suffice. The attendance must be given at the University or at a College, Medical School, or Hospital recognised by the University.

Examinations

Except as provided below, candidates must present themselves and pass in all the subjects of any part of an examination at the same examination. But candidates who have failed (a) in Chemistry or Physics at the First examination for the degrees of M.B. and Ch.B., or (b) in Anatomy or Physiology at the Second examination for the degrees of M.B. and Ch.B., or (c) in any subject of Parts II. and III. of the Final examination for the degrees of M.B. and Ch.B. may be exempted from re-examination in such part of the examination as the combined Examination Committee may determine.

First Examination

Ordinances 3. The First Examination shall consist of *three* Parts :

Part I. (*Pre-registration*).

Physics.

Inorganic Chemistry.

Part II. Zoology.

Botany.

Part III. Organic Chemistry.

4. Candidates, before presenting themselves for the First examination, are required to furnish certificates of having attended courses of instruction in accordance with the Regulations of the University and to have passed the Matriculation examination or obtained exemption there from.

5. The names of candidates who have satisfied the Examiners in *any* Part of the First examination shall be published in alphabetical order.

First Examination

Regulations Candidates for the First examination are required to furnish certificates of having attended approved courses of instruction at the University or at an institution recognised for this purpose by the University; or of

having attended, at some other institution, courses of instruction which shall be accepted by the University as equivalent.

The courses of instruction for students who have passed in Physics and Chemistry in the Matriculation examination, shall be as follows:—

(a) During the first year:—

1. Inorganic Chemistry: lectures and laboratory work: at least six months.
2. Physics: lectures and laboratory work: at least six months.
3. Zoology: lectures and laboratory work: at least one year.
4. Botany: lectures and laboratory work: at least one term.

These students will, in addition, commence attendance during the third term on the courses in Anatomy and Physiology.

(b) During the second year:—

5. Organic Chemistry: lectures and laboratory work: at least six months.

The examination (Part I) in Physics and Inorganic Chemistry will normally be held in March and the examination (Part II) in Zoology and Botany in June.

Students who have not passed in Chemistry and Physics in the Matriculation examination will be required to devote the whole of the first year to the Introductory courses in Physics, Chemistry, Zoology and Botany as prescribed for the B.Sc. degree, the course in each subject continuing throughout the session. They will take the First examination (*Parts I and II*) in June on completion of the first year's course. The examination will include laboratory work in the four subjects. Candidates may pass in each Part separately.

Candidates who have failed at the examination in March or June may be granted permission by the Senate to present themselves for a supplementary examination in September, and, if such permission be granted, may be excused such part of the supplementary examination as

the Combined Examination Committee, on report from the Examination Committee concerned, may determine.

Students are required to have passed in Inorganic Chemistry before they will be allowed to take the course in Organic Chemistry. The examination (Part III) in Organic Chemistry will normally be taken in March of the second year on completion of the course in that subject.

Students who, in September, have failed to pass in either Part I or Part II of the First examination, will not be allowed to proceed with their courses in Anatomy and Physiology until they have passed the Part or Parts in question.

Admission to the First Examination (Part I) from School.

Students who have taken Chemistry and Physics in matriculation and who have studied Zoology at school may present themselves for Part I. of the First Examination in March without attendance at the University, provided that they take at the same time a special examination in Zoology arranged by the University. Candidates who satisfy the examiners in all three subjects will take during the ensuing summer term the ordinary course in Botany and the third term course in Zoology for medical students, and may present themselves for Part II of the First Examination in June.

Concessions to Higher School Certificate holders.

Students who attain a satisfactory standard in Chemistry, Physics and Biology in the Higher School Certificate Examination and who propose to study for an Honours Science degree in Zoology, Anatomy, Physiology or Bacteriology in addition to the medical degrees may be exempted by the Board of Medicine from the courses in Inorganic Chemistry, Physics, Botany and Zoology of the first medical year.

This concession is only operative provided the student completes the three years' course of pre-clinical study.

Application for such exemptions should be made by the student to the Head of the Department in which he is presenting himself for Honours.

Second Examination

6. The Second examination shall consist of two Parts: Ordinances

Part I. *Materia Medica* and Practical
Pharmacy.

Part II. *Anatomy*.
Physiology.

7. Candidates, before presenting themselves for the Second examination, are required to furnish certificates of having attended courses of instruction in accordance with the Regulations of the University and to have passed the First examination.

8. The names of candidates who have satisfied the Examiners in either Part of the Second examination shall be published in alphabetical order.

Second Examination

Candidates for the Second examination are required Regulations to have attended complete courses of instruction approved by the University in *Materia Medica* and Practical Pharmacy (one term); and in *Anatomy* and Physiology (five terms). The certificates must show (1) that dissection has been practised during †five terms at least; (2) that laboratory instruction, approved by the University, has been received in Physiology; (3) that practical instruction, approved by the University, has been received in *Materia Medica* and Pharmacy.

Subjects of examination.

PART I.

Materia Medica and Pharmacy. Candidates will be required to recognise drugs, and to compound medicines.

PART II.

Anatomy. Candidates may, at the discretion of the Examiners, be required to perform actual dissection.

Physiology includes laboratory work in Bio-chemistry, and in Experimental and Human Physiology.

Candidates may pass in either Part separately.

Candidates who fail to satisfy the Examiners in any subject of the examination must, before being readmitted to examination, produce evidence of having pursued such further study as may have been required by the Examiners.

† Work in the vacations, if sufficient in amount, is counted as one term.

Final Examination**Ordinances**

9. The Final examination shall consist of three Parts :

PART I. Pathology and Bacteriology.

Pharmacology,

PART II. Medicine.

Surgery.

Obstetrics and Gynæcology.

Clinical Pathology.

PART III. Forensic Medicine.

Public Health.

Therapeutics.

Part I may not be taken before the end of the 2nd Clinical year. Parts II and III may not be taken before the end of the 3rd Clinical Year, nor before the completion of the 5th year of medical study.

10. Candidates, before presenting themselves for any part of the Final examination, must furnish certificates of having attended courses of instruction, in accordance with the Regulations of the University.

11. Candidates are required to have passed the Second examination before presenting themselves for Part I of the Final examination.

12. Candidates are required to have passed Part I of the Final examination before presenting themselves for Parts II and III.

13. Parts II and III may be taken either separately or together, but if taken separately, Part II must be passed before Part III.

14. The names of candidates who have satisfied the Examiners in Parts I or II of the Final examination shall be published in alphabetical order.

15. The names of candidates who have satisfied the Examiners in all the subjects of the Final examination, and are recommended for degrees, shall be published as follows :

1. Those awarded First Class Honours.

2. Those awarded Second Class Honours.

3. Those who have satisfied the Examiners.

The names shall be in alphabetical order in each case.

Final Examination

Candidates must furnish certificates of having attended courses of instruction approved by the University, and taken in the University or in a Medical School recognised for this purpose in the subjects in which they offer themselves for examination. Regulations

Candidates are required to furnish certificates as follows :—

A. In respect of lectures and laboratory work.

1. Pathology and Bacteriology, five terms.

The certificates in Pathology and Bacteriology must in all cases testify that the candidate has attended courses of laboratory instruction in these subjects, approved by the University.

Pharmacology, one hour a week during six terms.

2. Medicine, four terms.

Mental Diseases, one term.

Infectious Diseases, one term.

Children's Diseases, one term.

3. Surgery, four terms.

Ophthalmology, one term.

Orthopædic Surgery, one term.

4. Obstetrics and Gynæcology, two terms.

The certificate in Obstetrics and Gynæcology must in all cases testify that the candidate has attended courses of practical instruction, approved by the University, in the use of obstetrical and gynæcological instruments.

5. Clinical Pathology, one term.

6. Forensic Medicine, one term.

7. Public Health, one term.

8. Therapeutics, one term.

9. Radiology and Electro-therapeutics, one term.

B. In respect of hospital work.

1. In Medicine and Surgery, of having attended subsequent to the date of passing the second examination, the medical and surgical practice of a hospital or hospitals, approved by the University, during at least three years.

2. In Pathology and Morbid Anatomy, of having attended during at least twelve months demonstrations in the post-mortem room of a hospital, including practical instruction.
3. In Obstetrics, (a) of having attended during not less than three months the indoor and outdoor practice of a lying-in hospital or the lying-in wards of a general hospital approved by the University, and (b) of having personally conducted not less than twenty cases of labour, subsequently to having acted as surgical dresser and medical clinical clerk.

The certificate must in all cases (a) testify that such attendance has been given under the direct supervision of a medical officer of the hospital, and (b) regarding the personal conduct of cases of labour, be signed by a member of the staff of a hospital or a maternity charity.

4. In Gynæcology, of having, during at least three months, received in either a general or a special hospital, approved by the University, such clinical instruction in the diseases peculiar to women as shall be approved by the University.
5. Of having received clinical instruction in the diseases of children.
6. Of having received clinical instruction in Orthopædic Surgery.
7. Of having received clinical instruction in diseases of the eye, ear, throat and skin and in venereal disease.
8. Of having received instruction in the administration of anæsthetics.
9. Of having acquired proficiency in vaccination.
10. Of having acted as a surgical dresser for six months, as a clinical medical clerk for six months, and as a clerk for three months in the post-mortem room of a hospital recognised by the University.

Subjects of Examination.

1. PHARMACOLOGY.

2. PATHOLOGY AND BACTERIOLOGY.

Candidates will be examined practically on Bacteriology, Pathological Anatomy, Histology, and Chemistry.

3. MEDICINE: SYSTEMATIC AND CLINICAL, INCLUDING MENTAL DISEASES AND DISEASES OF CHILDREN AND SKIN DISEASES.

Candidates, in order to pass, must satisfy the Examiners in the clinical part of the examination.

4. SURGERY: SYSTEMATIC, CLINICAL AND PRACTICAL, INCLUDING ORTHOPÆDIC SURGERY, OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY AND LARYNGOLOGY.

Candidates will be examined on the use of surgical instruments and apparatus, and on museum preparations; they may also be required to perform operations on the dead body.

Candidates, in order to pass, must satisfy the Examiners in the clinical part of the examination.

5. OBSTETRICS AND GYNÆCOLOGY: SYSTEMATIC, CLINICAL, AND PRACTICAL.

Candidates will be required to shew their practical acquaintance with obstetrical and gynæcological manipulations and instruments by the use of the phantom or otherwise and will also be examined on museum preparations.

Candidates in order to pass, must satisfy the examiners in the clinical part of the examination.

6. CLINICAL PATHOLOGY.

7. FORENSIC MEDICINE AND TOXICOLOGY.

Candidates may be required to determine the character of stains and stained fabrics, microscopically and chemically, and to recognise poisonous articles of the *materia medica*.

8. PUBLIC HEALTH.

9. THERAPEUTICS.

In determining the award of Honours account will be taken of the results of the Second examination.

Candidates who fail to satisfy the Examiners in any subject of the examination must, before being re-admitted to examination, produce evidence of having pursued such further study as may have been required by the examiners.

Degree of Doctor of Medicine

Ordinance 1. The degree of Doctor of Medicine may be conferred, on payment of the proper fee, upon Bachelors of Medicine and Bachelors of Surgery of the University, subject to the conditions contained in the following Articles.

2. Candidates are required to have completed, subsequently to taking the degrees of Bachelor of Medicine and Bachelor of Surgery, either (a) two years of approved hospital practice or approved special study, or (b) four years in the practice of their profession in one or other of its branches. It shall be permitted to a candidate to combine successive periods of work under (a) and (b) always provided that six months of approved hospital work or approved special study shall be regarded as equivalent to one year of professional practice.

3. Candidates having satisfied the requirements under Article 2, may proceed to the degree either (a) by examination only, or (b) by presenting a thesis or published work on a subject or subjects approved by the Board of the Faculty of Medicine and submitting themselves in addition to such examination as may be deemed necessary. The examination under (b) may be waived in terms of the Regulations laid down by the Senate.

I. *Award of the degree by Examination alone.*

Regulations 1. Candidates desiring to proceed to the degree by examination must submit themselves to an examination in one subject selected from the following list, viz. :—

General Medicine.
 Psychological Medicine.
 State Medicine.
 Paediatrics.
 Dermatology.
 Obstetrics and Gynæcology.
 Pharmacology and Therapeutics.
 Radiology and Electro-therapeutics.
 Forensic Medicine.
 Pathology.
 Bacteriology.
 Pathology and Bacteriology.
 Physiology.
 Anatomy.

2. The examination in each subject shall include :—
 - (a) Two written papers (3 hours each).
 - (b) One of the following :—
 - (i) An essay on some general or special subject (3 hours).
 - (ii) A written commentary on a case or cases (3 hours).
 - (c) (i) A clinical examination and/or a practical examination.
 - (ii) A *viva voce* examination.
- 3. Candidates must state on their application forms the subject in which they propose to present themselves for examination.

II. Award of the degree upon Thesis or Published Work.

1. Candidates desiring to proceed to the degree by thesis or published work must submit the title of the thesis or published work for the approval of the Board of the Faculty of Medicine, and, such approval having been obtained, must furnish three copies (printed or type-written) together with any drawings or specimens which are deemed necessary for illustrating them. They must also state the subject in which they desire to be examined, such subject being selected from the list prescribed in Article 1 of these Regulations.

2. If the thesis or published work presented by the candidate is considered by the examiners to be of exceptional merit, the degree may be awarded to him without further examination.

3. If the thesis or published work presented by the candidate does not, in the opinion of the examiners, justify awarding the degree without further examination, the candidate must undergo an examination in the subject selected by him from the list prescribed in Article 1 of these Regulations. The examiners may, at their discretion, exempt such candidate from the essay or written commentary. • • •

III. The names of candidates who have been approved for the degree of Doctor of Medicine shall be published in alphabetical order, and distinction may be awarded on the recommendation of the Examiners.

IV. All candidates for the degree of Doctor of Medicine must send in applications to the Clerk to the Senate not later than February 1st or August 1st in any year, on a special form to be obtained at the Dean's Office, School of Medicine.

Degree of Master of Surgery

Ordinance 1. No candidate shall be admitted to the degree of Master of Surgery unless he has previously received the degrees of Bachelor of Medicine and Bachelor of Surgery, and at least one year has elapsed since he passed the examination for those degrees.

2. Every candidate, before presenting himself for the examination for the degree of Master of Surgery, is required to have graduated as Bachelor of Medicine and Bachelor of Surgery, and to furnish certificates of attendance in accordance with the Regulations of the University.

3. The subjects of examination are as follows:

Surgical Anatomy	Clinical Surgery
Surgery	Ophthalmology
Operative Surgery	Pathology and Bacteriology.

4. The names of candidates who have satisfied the Examiners shall be published in alphabetical order, and distinction may be awarded at the discretion of the Examiners.

Regulations Candidates, before admission to the examination for the degree of Master of Surgery, are required to furnish certificates which shall be deemed satisfactory by the University that they, since taking the degrees of Bachelor of Medicine and of Surgery, have held, for not less than six months, a Surgical appointment in a public hospital, or other public institution affording full opportunity for the study of Practical Surgery.

Candidates proposing to present themselves for this examination are required to give notice, in writing, to the Clerk to the Senate before February 1st or August 1st

Candidates for the degree of Master of Surgery are also required to furnish certificates :

1. Of having attended a special course of instruction on Operative Surgery, approved by the University, and of having personally practised the principal surgical operations on the dead body.
2. Of having attended a systematic course of instruction, including practical work, approved by the University, on Pathology and Bacteriology.
3. Of having attended a course on Ophthalmology, and of having received instruction in Ophthalmic Surgery approved by the University.

Degree of Doctor of Philosophy (Ph.D)

1. The Degree of Doctor of Philosophy (Ph.D). is Ordinance conferred, on payment of the proper fee, on persons who are registered graduates of the University of Leeds, or who have obtained at an approved University a degree awarded upon an approved course of study extending over not less than three years, or have passed the Final examination for such a degree at an approved University, provided that in all cases the conditions laid down in the following paragraphs have been satisfied.

2. All Candidates for the degree of Doctor of Philosophy are required to pursue in the University for at least two academic years an approved full-time course of advanced study and research, under the direction of the Head of the Department concerned or of a member of the University staff appointed by the Senate on his recommendation ;

provided that, after completion of the first year of the course, candidates may be permitted to devote such periods as may be deemed advisable by the Senate to full-time study and research in other approved Universities or institutions, while remaining under the direction of the University or of persons nominated by the University.

- Regulations.
3. Before entering on the course of advanced study and research, candidates are required
 - (a) To have attained the age of 21 years.
 - (b) To submit to the Senate for its approval the course of advanced study and research proposed by them and to present evidence satisfactory to the Senate that they are qualified to undertake the proposed course.
 - (c) To register as students of the University and to pay the prescribed fees for tuition.
 4. On completing the course of advanced study and research, candidates are required
 - (a) To present a thesis on the subject of their advanced study and research, and to satisfy the examiners that it contains original work worthy of publication, and that it is of a sufficient standard of merit to qualify for the degree of Doctor of Philosophy.
 - (b) To submit themselves for an oral examination on matters relevant to their thesis and, if required, for a written examination and to satisfy the examiners in the examination as well as in the thesis presented.

DIPLOMA IN PUBLIC HEALTH

Regulations*

1. The curriculum shall extend over a period of not less than twelve calendar months subsequent to the attainment of a registrable qualification.

2. The examination shall be held twice in each year, in March and September.

The examination shall be in two Parts.

PART I.

3. The examination shall be practical, written and oral, and shall include the following subjects:—

(a) Bacteriology and Parasitology (including Medical Entomology).

(b) Chemistry and Physics, and Meteorology and Climatology in relation to Public Health.

Candidates must pass in (a) and (b) at one time and must do so before being admitted to Part II.

PART II.

4. The examination shall include the following:—

(c) Hygiene and Sanitation (including Sanitary Construction).

(d) Epidemiology and Infectious Diseases.

(e) Sanitary Law and Vital Statistics.

(f) Public Health Administration.

It shall be written and oral, and shall include practical examinations in Infectious Diseases, Food Inspection, Inspection of premises, dwellings, factories, workshops, schools, etc.

Candidates shall not be admitted to Part II. until after the lapse of two years from the date of obtaining a registrable qualification in Medicine, Surgery and Midwifery, which qualification must

*These regulations are to be modified by the addition of courses in Physiology and Biochemistry as applied to nutrition, radiology and electrology after 1st October, 1932.

be registered ; and they must pass at one time in all the subjects (c), (d), (e) and (f).

5. Before admission to Part I. candidates must produce evidence of having attended during a period of not less than six months practical instruction in :—

- (i) Bacteriology and Parasitology (including Medical Entomology), especially in their relation to diseases of man, and to those diseases of the lower animals which are transmissible to man.

This course must have occupied at least 180 hours of which at least 150 must have been spent in practical laboratory work.

- (ii) Chemistry and Physics in relation to Public Health.

At least 90 hours must have been devoted to this course of which at least 70 hours must have been spent in practical laboratory work.

- (iii) Meteorology and Climatology in relation to Public Health.

At least 10 hours must have been devoted to this course.

6. Before admission to Part II. candidates must produce evidence of having held a registrable qualification for at least two years and :—

- I. Of having attended a course of instruction of not less than 80 hours in :—

- (a) The principles of Public Health and Sanitation (30).
- (b) Epidemiology and Vital Statistics (20).
- (c) Sanitary Law and Administration (including Public Medical Services (20).
- (d) Sanitary Construction and Planning (10).

- II. Of having attended for three months on the clinical practice of a recognised hospital for Infectious Diseases and of having received therein instruction in the methods of administration. Sixty hours attendance in all is required and

candidates must attend for 2 hours on at least 30 days. One or more such attendances must be given in each week of the three months.

III. Of having, during a period of not less than six months, been engaged in acquiring a practical knowledge of the duties, routine and special, of Public Health Administration under the supervision of a Medical Officer of Health, who shall certify that candidates have received, from himself or other competent Medical Officer, during not less than three hours on each of sixty working days, practical instruction in these duties and also those relating to:—

- (a) Maternity and Child Welfare Service.
- (b) Health Service for Children of School Age.
- (c) Venereal Diseases Service.
- (d) Tuberculosis Services.
- (e) Industrial Hygiene.
- (f) Inspection and Control of Food, including meat and milk.

Certificates under III. must be given by a Medical Officer of Health who devotes his whole time to the work, or by the Medical Officer of Health of a Sanitary Area having a population of not less than 50,000 or in Ireland the Medical Superintendent Officer of Health of a county or county borough having a population of not less than 50,000.

7. The courses for Public Health must have been attended in the University or in a College, Medical School, or other institution whose courses of instruction shall have been accepted by the University as equivalent, but all candidates must spend at least three months on courses in the University.

8. Every candidate who has passed both parts of the examination shall receive a Diploma in Public Health.

Summary of Courses for Diploma in Public Health

Period.	MONDAY.	TUESDAY.	WEDNESDAY	THURSDAY.	FRIDAY.	SATURDAY.
1st Term (October to Dec- ember)	Bacteriology 2—5 Sanitary Law, Adminis- tration, &c. 5.30—7.30	Lecture on Public Health 9—10.30 Sanitary Chemistry 2—5	Bacteriology 2—5	Sanitary Chemistry 2—5 Sanitary Adminis- tration, &c. 5.30—7.30	Bacteriology 2—5	Lecture on Public Health 9—10.30 Parasitology 10.45—12.45
2nd Term (January to March).	Bacteriology 2—5	(1st half term) Sanitary Chemistry 2—5 (2nd half term) Meteorology and Climatology 3—5	Bacteriology 2—5	(1st half term) Sanitary Chemistry 2—5 (2nd half term) Meteorology and Climatology 3—5	Bacteriology 2—5	Sanitary Engineering &c. 9.30—11
3rd Term (April to June)						

Six months practical knowledge of administration under supervision of a Medical Officer of Health; and a special course at a Hospital for Infectious Diseases, are made by arrangement.

DIPLOMA IN PSYCHOLOGICAL MEDICINE

Regulations

1. The examination is in Three Parts, and is written, oral and practical.

2. Candidates, before entering for the first Part of the examination must produce evidence,

(A) 1. Of being graduates in Medicine of at least one year's standing.

2. Of having attended, after graduation, approved courses of instruction in the subjects of examination.

3. Of having acted as Clinical Clerk or Assistant Medical Officer in an Asylum, recognised for this purpose, for a period of at least six months.

4. Of having attended a course of systematic instruction on the normal and morbid anatomy of the brain for a period of six months in the recognised laboratories of the University.

(2, 3 and 4 may be taken concurrently, and as evidence of (4) must be produced a laboratory note book record of practical work which has been regularly inspected and signed by a recognised teacher.)

or (B) 1. Of having acted as Assistant Medical Officer in an Asylum of not less than 500 beds for a period of at least two years.

2. Of having, during or after this period, attended approved courses of instruction in the subjects of examination.

3. Of having attended a course of systematic instruction on the normal and morbid anatomy and histology of the brain for a period of six months in the recognised laboratories of the University.

(as evidence of this must be produced a laboratory note book record of practical work which has been regularly inspected and signed by a recognised teacher.)

4. In addition to the laboratory work under (3), or in lieu of three months thereof, candidates may submit a dissertation which must embody the results of personal observations or original research in relation to psychological medicine, provided always that original work, published in scientific journals, or in the Proceedings of learned societies, or separately, shall be admissible in lieu of or in addition to a dissertation specially written for the diploma.

Subjects of Examination

PART I.

- (i) The Development, Anatomy and Histology (Human and Comparative) of the Nervous System.
- (ii) The Physiology of the Nervous System and of the Organs of Special Sense.
- (iii) General Psychology.

PART II.

- (iv) The Pathology of the Nervous System.

PART III.

- (v) Clinical Psychiatry.
- (vi) Experimental and Morbid Psychology.
- (vii) (a) Clinical Neurology.
(b) Mental Hospital Administration.
(c) Medico-Legal aspects of Insanity.

Candidates in order to pass, must satisfy the examiners in the practical and clinical parts of the examination in Parts II and III respectively.

Candidates may present themselves for the three Parts of the examination separately or at the same time, provided that no candidate shall be allowed to pass in Part II unless he has already passed in Part I, or in Part III unless he has already passed in Parts I and II. No candidate's name will be published until he has satisfied the Examiners in all three Parts of the examination.

Every candidate who has passed in all three Parts of the examination and is legally qualified and registered, will receive a diploma in Psychological Medicine.

Summary of Courses for Diploma in Psychological Medicine

Period.	TUESDAYS.	WEDNESDAYS.	THURSDAYS.	FRIDAYS.
1st Term October to December			Physiology 2 p.m. Anatomy 3 p.m. Experimental Psychology 4.30 p.m.	Physiology 2 p.m. Anatomy 3 p.m. Clinical Neurology 4 p.m.
2nd Term January to March			Physiology 2 p.m. General Psychology 3 p.m.	Physiology 2 p.m.
3rd Term April to June	Mental Diseases Lectures 4 p.m.	West Riding Mental Hospital, Wakefield. 3 p.m.	Neuropathology 2 p.m. Mental Diseases Lecture 4 p.m.	

Subject to Alteration.

DIPLOMA IN NURSING**Regulations**

1. Each candidate who satisfies the examiners shall receive a Diploma, and shall be styled a Diplomat in Nursing, University of Leeds.

2. Before presenting themselves for examination for the Diploma in Nursing, candidates (*a*) must have completed four years' training in a general hospital recognised by the University for the purpose, *or* (*b*) must have completed a three years' training in an approved general hospital and (after obtaining the State Certificate) have gained further two years' experience of a character approved by the University.

3. Candidates shall furnish evidence of having attained an adequate standard in general education satisfactory to the University.

4. The four years' hospital training shall include—

(*a*) Practical instruction and tuition in the following :—

- i. Ward nursing, medical, surgical and special.
- ii. The Principles of Surgical Technique and operation service.
- iii. Bandaging and the preparation and use of splints and other appliances.
- iv. Invalid cookery.
- v. The feeding and care of infants.
- vi. The Principles of Ward administration.
- vii. Testing of urine.
- viii. Preparation for autopsies.

(*b*) Attendance on the following courses of Lectures and Lecture Demonstrations :—

- i. The Principles and Practice of Nursing 20 lectures.
- ii. Anatomy and Physiology 20 ..
- iii. Medicine 12 ..
- iv. Surgery 12 ..
- v. Obstetrics and Gynæcology .. 8 ..
- vi. Children's Diseases and the nursing of sick children 6 ..
- vii. Hygiene ' .. ' .. 8 ..

Candidates shall furnish certificates of such attendance and of having passed satisfactorily a class examination in each subject.

At least three months must be spent in attendance on courses in the University of Leeds (for this purpose lectures delivered in the Leeds General Infirmary shall be deemed to have been delivered in the University of Leeds). The number and the character of the courses shall be determined in each case by the University.

5. Candidates must also attend a Course of Lectures in the University of Leeds on Social Economics or some other approved subject. Fee £3.

6. A nurse may be registered as a candidate for the examination *at any time* after she has been accepted for full Hospital Training, upon

- (a) Payment of a registration fee of five guineas.
- (b) Producing the necessary evidence of general education.

7. The examination may be taken at any time after lodging the certificate of completion of training (as defined in paragraph 2), upon

- (a) Payment of a further fee of five guineas.
- (b) The production of the certificates of attendance upon the prescribed courses of lectures (paragraphs 4 and 5).

8. The examination shall be held twice annually, and shall be

- (a) By written papers.
- (b) In practical work.
- (c) *Viva Voce*.

Parts I and II may be taken separately.

PART I—Paper and *viva voce* in all subjects :

- (a) Anatomy and Physiology.
- (b) Obstetrics and Gynaecology.
- (c) Diseases of Infancy and Childhood.
- (d) Hygiene.

PART II—Paper, *viva voce* and Practical examination in all subjects :

(e) Principles and Practice of Nursing—

(1) General.

(2) Administrative.

(f) Medicine.

(g) Surgery.

Enquiries as to fees, courses, &c., should be directed to the Dean of the Faculty of Medicine, or to the Matron of the Leeds General Infirmary.

COURSE OF INSTRUCTION FOR SISTER-TUTORS

This course is open to fully trained nurses who have taken, or are taking the Diploma in Nursing of the University of Leeds, and extends over a session of 32 weeks (3 terms).

Syllabus (*in addition* to requirements for the Diploma in Nursing).

1. GENERAL ELEMENTARY SCIENCE.

The elementary facts of Chemistry, Physics, Zoology and Botany in relation to vital phenomena. 1st and 3rd terms, one half-day per week. 2nd term, two half-days per week.

2. ANATOMY.

Demonstrations and practical work on selected organs and parts. 2nd and 3rd terms, 3 hours per week.

3. PHYSIOLOGY.

Demonstrations and practical work in Physiology and Histology including the testing of body-fluids, examination of blood, etc. 2nd and 3rd terms, 3 hours per week.

4. PATHOLOGY.

Six demonstrations in the post-mortem room. 36 hours Bacteriology, including sterilisation and immunity—3rd term.

5. HYGIENE.

Visits to various centres of public health work, including Maternity and Infant Welfare centres.

6. COURSES OF INSTRUCTION IN EDUCATION.

- (a) History of Education—I term, 1 hour per week.
- (b) Experimental Education—I term, 1 hour per week.
- (c) Educational Psychology—3 terms, 1 hour per week.
- (d) Principles of Education—
 3 terms, 1 hour per week, Theoretical.
 3 terms, 1 hour per week, Practical.
- (e) Practical Teaching—3 terms, $\frac{1}{2}$ day per week during session, including demonstration or criticism lesson and visits to special schools and institutions.
- (f) Cookery Teaching.

7. SOCIAL ECONOMICS. (If not already taken for diploma).

Fees £35 0 0 for Sister-Tutor's Course.

13 10 0 for Diploma in Nursing (including £3 for course of lectures in Social Economics) and Registration Fee.

Total £48 10 0

Residence, etc. in University Hostels £54 to £63 per session, according to room.

DATES OF EXAMINATIONS

1. The Matriculation examination is held twice in each calendar year, in July and in September.

2. Part I. of the. First examination in March and September, Part II. in June and September.

3. The Second and Final examinations are held in March and September.

The examinations for the Diplomas in Public Health, Psychological Medicine, and Nursing, as in (3).

The exact dates are published on the notice boards some weeks in advance.

SCHOOL OF MEDICINE

The School of Medicine is separated from the Infirmary by the width of a street only, a proximity which facilitates attendance at both institutions. The wealth of clinical material in the Infirmary and other Medical Institutions in Leeds and the West Riding, together with the Laboratories, &c., in this School, offers to students opportunities of great value.

In connection with the clinical teaching in the Infirmary the Instructional Block provides ample accommodation for clinical lectures and tutorial instruction, as well as a clinical laboratory for the use of clerks and dressers.

Students are educated for the degrees of Leeds and other Universities, and for the diplomas of all Medical Licensing Bodies in the United Kingdom. Women are admitted on the same terms as men.

The present buildings were opened in 1894. They contain one of the finest Dissecting Rooms in the kingdom; fully equipped laboratories for Physiology, Biochemistry, Pathology, and Bacteriology; adequate Lecture Theatre and Class Room accommodation; a Library and Reading Room; a Pathological Museum, and a separate Museum for Anatomy. Extensive additions to the School were opened on October 1st, 1930, and a new Institute of Pathology is now in course of erection.

The convenience and comfort of students are also provided for by commodious Common Rooms, separate lockers for coats, &c., and a Refectory. A separate Common Room is provided for women students.

Prescribed Course of Studies for Medical Students

Matriculated students and those who have passed a recognised alternative examination in general knowledge may register with the General Medical Council on passing the pre-medical registration examination in inorganic chemistry and physics. Thereafter they require to spend

five years on a prescribed course of studies, three of which shall be clinical years.

The full medical curriculum may be divided into three periods, the pre-registration, the pre-clinical and the clinical. The pre-registration period, if spent in the University, extends from October to April, and is devoted to the study of inorganic chemistry, physics and zoology. The pre-clinical period, approximately two years in length, is spent in the study of zoology, botany, organic chemistry, anatomy, physiology, materia medica and pharmacy. The final period of three years is devoted to pharmacology, pathology, and the various clinical subjects, including hospital practice.

The regulations of the School of Medicine of the University of Leeds require that the professional examinations be passed at the prescribed periods. Students must pass the examinations of one period before they are permitted to commence the studies of that which follows. The only exception to this rule is that candidates who have been exempted from the courses and examinations in inorganic chemistry and physics may take the examination in organic chemistry (Part III. of the First examination) on the completion of the course in that subject, although they have not yet taken Part II. of the First examination (zoology and botany). Students will not be allowed to enter the School of Medicine until they have passed the examination in inorganic chemistry and physics.

The curriculum is arranged for the purpose of giving a thorough and complete medical education and to end this regular and punctual attendance at lectures and classes is absolute necessary. For the same reason it is very desirable that all lectures and classes (as well as the clinical appointments) should be taken in the order indicated in the "Normal Course," and no part of the course is to be looked upon merely as a formality necessary for "Signing up."

Students should not attend subjects like vaccination and infectious diseases until they have attended some lectures on medicine and pathology.

The following is the arranged distribution of hours between the School and the Infirmary: School, 9—10, 12—2, 4—5; Infirmary, 10—12, and 2—4. Students are expected to leave their work at one institution so as to be punctual at the other if they have lectures or classes (or clinical appointments, as the case may be) to attend.

When the final examinations have been passed, the student registers with the General Medical Council and is then legally entitled to practice his profession. The necessary form can be obtained at the Dean's office.

Having thus become qualified, the graduate will find it advantageous, in order to widen his experience, to spend at least the first year as a House Physician or a House Surgeon in a hospital, or as an assistant to a practitioner.

Should one of the public services be the ultimate aim care should be taken to make full acquaintance with the regulations in force for the time being, these may be obtained in the Dean's office.

GENERAL REGULATIONS FOR STUDENTS

1. All students are required to enrol their names at the Dean's office on the opening day of each session. Students who from any unavoidable cause are prevented from personally attending at that time must communicate with the Academic Sub-Dean by letter.

2. Should a student change his residence during the Session, he must inform the Academic Sub-Dean of the change of his address without delay.

3. Regular, punctual and orderly attendance at Lectures, Demonstrations and Class-examinations is required of every student, in order to obtain certificates of attendance. In the case of persistent neglect of work, repeated failure at professional examinations or unreasonable delay in presenting himself for such examinations, a student may be required to withdraw from the University.

4. In cases of illness or other unavoidable cause of non-attendance at any Lecture, Demonstration or Class examination, a written explanation, accompanied, when

necessary, by a medical certificate, must be sent to the Academic Sub-Dean with as little delay as possible; otherwise excuses for absence cannot be accepted. Hospital work is not counted as an excuse for non-attendance upon lectures excepting in the case of students performing their duty in the Receiving Room, and for attendance upon actual cases of Midwifery, all of which must be duly certified. Consequently students must not take any resident hospital appointments which involve absence from lectures or classes in the School, unless they have previously informed and obtained the permission of the Academic Sub-Dean.

5. Smoking is allowed only in the Students' Common Room, and after 1 p.m., in the Refectory.

6. Students will be required to make good, to the satisfaction of the Council, any loss, wilful damage or injury they may occasion to the property of the University.

7. Students in the School of Medicine are amenable to the discipline and general regulations of the University, as well as to the rules made by the Board of the Faculty of Medicine. Violation of these regulations and rules renders a student liable to immediate dismissal and to the forfeiture of all fees, certificates and privileges as a student of the University.

8. Prior to entering the School every student is required to sign the following declaration:

If admitted a Student in the Faculty of Medicine of the University of Leeds, I undertake to comply with all rules and regulations of the University, and to conduct myself on all occasions in an orderly manner. I fully understand that no allowance whatever will be made, and that I have no claim upon the Council of the University in respect of any fees paid by or due from me, in case such fees are forfeited by any irregularity or misconduct on my part.

The Library

Contains a valuable collection of books, composed of the united libraries of the School of Medicine and of the Leeds and West Riding Medico-Chirurgical Society. The Library of the Old Infirmary, rich in Medical Classics, became the property of the Medical School in 1865.

The Collection includes most of the modern works of importance, and the chief English and foreign periodicals are taken.

Recommendations for the purchase of new works should be entered in a book provided for the purpose, or be addressed to the Hon. Librarian.

Library Rules

1. The Library is open to students daily, between the hours of 9 a.m. and 5 p.m., except on Saturdays, when it is closed at 1 p.m. During these hours, books can be obtained for use in the Library.

2. Students wishing to borrow books for home use are allowed to do so under the following regulations:—

(a) Every student wishing to take books away from the Library shall deposit half-a-guinea as caution money; this sum, which is now paid at the same time as the second instalment of the composition fee, or the balance of it remaining shall be refunded to the depositor on his completion of the course.

(b) The student will, on payment of the deposit, receive a library card with his name upon it.

(c) Books borrowed for home use must be returned to the Library within two weeks from the date of issue, unless they are in urgent demand when they may be recalled earlier. One volume only can be borrowed at a time. A fine of 2d. a day is incurred for every day that it has been detained beyond the time allowed.

(d) No periodical for the current year may be removed from the Library.

(e) In case of loss of or damage to any book, the loss or damage must be made good by the borrower.

(f) Every book must be returned to the Library at the end of the Summer term.

Museums

The MUSEUM OF PATHOLOGY contains, in addition to preparations illustrating the ordinary pathological processes, many rare specimens, some of historical interest. It draws largely for its supply from the abundant material of the General Infirmary, as well as from other institutions in the City. A collection of Microscope sections from specimens in the Museum is available for the use of students on application.

A complete type collection of MATERIA MEDICA specimens is also placed here for the convenience of students.

THE MUSEUM OF ANATOMY AND BONE-ROOM adjoins the Dissecting Room. It was fitted up under the

direction of the first Professor of Anatomy (Dr. T. Wardrop Griffith) with a valuable collection of specimens specially arranged for study, which are also used in illustration of the Lectures on Anatomy. Amongst them are a complete set of bones marked with the muscular attachments, and mounted in revolving cases; and an extensive series of wax models, illustrating the development of the foetus.

Lockers

*These are provided for the safe keeping of coats, books, &c. The rent is 5s. per annum, commencing at the 1st term, with a deposit of 5s., which will be returned when the key is given up, if the locker is undamaged.

Refectory

A well-appointed Refectory, which is open daily, excepting Saturday, has been provided in the building. It is under the combined management of the Board of the Faculty and of the Students' Representative Council. Luncheon is served from 12 to 2 p.m. Tea, coffee, and light refreshments may be obtained until 5 p.m.

The Leeds University Union

Includes membership of debating societies, admission to athletics and gymnasium, and use of Common Rooms. At the gymnasium a permanent instructor is engaged.

A subscription of £3 per annum is charged, by direction of the Council of the University, to all students, and is to be paid like other University fees to the Accountant. The composition fee includes the Union subscription.

Students' Representative Council

This Council is elected annually by the students of the School of Medicine from amongst their own number.

It concerns itself with the affairs of the Medical students, and appoints representatives to serve on the Committee of the Students' Union, a proportion of whose funds it has at its disposal.

The Secretary of the Council is *ex-officio* the Medical Secretary of the Union Committee.

The Council further appoints Dinner, Entertainments and Sports sub-committees, and three of its number serve upon the Refectory Committee.

The office holders for 1930-31 are—*President*, J. S. Gourlay, and *Secretary*, J. H. Lawrence.

The Medical Society

is managed by a committee elected by the Students. Meetings are held on alternate Tuesdays during the winter session, when papers dealing with subjects of medical interest are read by members of the Society and by eminent members of the medical profession. The session usually commences with an address by one of the members of the Staff.

The office holders for 1930-31 were—

Presidents:—L. N. Pyrah, R. E. Tunbridge, P. R. Allison.

Secretaries:—E. L. Brittain, F. R. W. Hemsley.

Treasurer:—R. Broomhead.

Assistant Treasurer: J. M. P. Clark.

Editor of Transactions: J. McD. Holmes.

A copy of the Constitution of the Medical Society can be obtained from the Dean's Office.

Royal Army Medical Corps Territorial Army 49th (West Riding) Division

Medical Students are invited to join this Corps. Training is carried on throughout the year, the more active part of the drill season being from the beginning of May to the end of July.

The Annual Camp (lasting 14 days) is usually held at the end of July and the beginning of August.

Instruction is given in First Aid, nursing duties, cooking for the personnel and sick, hygiene and sanitation.

The following Units are stationed in Leeds:—

146th West Riding Field Ambulance.

6th Northern Hygiene Company.

Headquarters of Medical Services, West Riding Division.

For further information apply to the Adjutant, Royal Army Medical Corps, Harewood Barracks, Leeds.

Officers' Training Corps

This organisation was inaugurated in October, 1909. For information see the University Calendar. The object is to train students for commissions in the Special Reserve and the Territorial Force. Students should give their support to this national object.

SENIOR SCHOLARSHIPS

The MEDICAL SCHOLARSHIP (founded 1888), consists of a free ticket to the lectures and laboratory courses in the Faculty of Medicine of the University, and is at present of the value of £130. It is awarded, after a report from the examiners, on the results of the *First* M.B. examination of the University of Leeds.

THE INFIRMARY SCHOLARSHIP

This scholarship is of the value of £75, and consists of a free ticket to the Clinical teaching in the Leeds General Infirmary. The holder is required to enter as a student for the whole medical curriculum at the University in the session following the date of examination.

The scholarship is awarded, after a report from the Examiners, on the results of the *Second M.B. Examination* of the University of Leeds.

Present Scholarship Holders

MEDICAL SCHOLARSHIP.		LEEDS INFIRMARY SCHOLARSHIP.	
1927	B. S. Platt	1925	P. R. Allison
1928	F. Badrock	1926	E. Gledhill
1929	R. L. Lamming	1929	N. Wood
1930	H. H. Kitching	1930	H. S. Shucksmith
1931	J. A. Rhind	1931	R. L. Lamming

For full particulars of all University Scholarships and for the general regulations under which Scholarships are held, see the Scholarship Prospectus. For particulars of Scholarships awarded by the Leeds City Council, apply to the Director of Education, Higher Education Department, Leeds.

PRIZES

The Littlewood Prize

The late Colonel Harry Littlewood, formerly Professor of Surgery in the University, bequeathed a legacy of £1,000 to be applied for providing a prize in the Anatomy Department, every year or in alternate years.

The prize will be awarded on the result of the examination in Anatomy for the Second M.B., Ch.B. in March of each year, provided that the candidates have attended the full course of Anatomy in this University, and that students for other qualifications who have attended the full course be permitted to compete for the prize.

AWARD

1929 N. Wood. 1930 H. S. Shucksmith. 1931 R. L. Lamming.

The Scattergood Prize

This prize, instituted in memory of the first Dean of the Medical Department, Yorkshire College, is awarded annually on a competition in Obstetrics and Gynaecology

held in February. The value of the prize, which consists of books or instruments, is five pounds. For particulars apply to the Dean.

AWARD

1929 F. R. Beetham. 1930 M. Ellis. 1931 J. Scholefield.

**The Thorp Scholarship in Forensic Medicine
and Hygiene**

The Thorp prizes, instituted by the late Dr. Disney J. Thorp, one of the founders of the School, are now awarded as one annual Scholarship of about £25 to a student or graduate of the University prepared to carry out some research work in some subject bearing upon Forensic Medicine or Public Health. For particulars apply to the Dean.

The Hardwick Prize in Clinical Medicine

The Hardwick Prize in Clinical Medicine, of the value of ten pounds, is given annually on a competition which is held in February. Candidates must have been students in the School of Medicine of the University for not less than eight terms; they must be attending the medical practice of the Leeds General Infirmary; and they must have held or be then holding the office of clinical clerk in that Institution.

AWARD

1929 P. E. Glynn. 1930 L. Seaton. 1931 P. R. Allison.

The McGill Prize in Clinical Surgery

The McGill Prize in Clinical Surgery, value £10, is given annually on a competition which takes place in February. The prize is given for proficiency in the study and practice of Clinical Surgery as determined by

1. Case-taking.
2. A written examination.
3. A *vivâ voce* examination.

Candidates must be students in the School of Medicine of the University of Leeds, who have not at the time of the examination entered on their sixth year, and who have held the following clinical appointments at the Infirmary:—

1. In-patient dresser.
2. In-patient medical clerk.
3. Post-mortem clerk.

4. Ophthalmic dresser.
5. Gynæcological dresser.

For further particulars apply to the Clinical Sub-Dean.

AWARD

1931 P. R. Allison, J. Scholefield.

Edward Ward Memorial Prize in Surgical Anatomy

The Edward Ward Memorial Prize in Surgical Anatomy of the value of £5 is awarded annually on a competition held under the following conditions:—

The Examiners for this Prize will be the Heads of the Departments of Anatomy and Surgery, and one of the Clinical Lecturers in Surgery to be appointed by the Board of the Faculty.

The examinations will be held in the month of March in the week preceding the Final examination, and will consist of (a) a written paper, (b) *viva voce* examination on the living subject and (c) dissections.

Students are eligible irrespective of the qualifications for which they are working, and must be in their Final year (normally fifth year) but due allowance will be made for those whose course has been extended by extra courses for the B.Sc., Primary Fellowship, or other reason satisfactory to the Board.

AWARD

1929 P. E. Glynn. 1930 L. Seaton. 1931 P. R. Allison.

William Hey Medal

The sum of £200 has been invested with a view of providing a gold medal for the most distinguished graduate with first-class Honours in the M.B., Ch.B list of the Calendar year.

The award will be made by the Examination Committee in September on:—

- (a) The results of the Final M.B. (Part III) examinations held in March and September of the same year. Previous examinations, Second M.B. and Final M.B. (Parts I and II), will also be taken into consideration.
- (b) A consideration of the student's general standing, record and character. The successful student must have displayed qualities of such an order as to entitle to special distinction.

In cases when there was no award in any year, and provided the income admits, and more than one student in any one year shows special distinction, two medals may be awarded.

AWARDS

1920	H. H. Gleave	1925	No award
1921	G. Armitage	1926	No award
	D. Chamberlain	1927	No award
1922	No Award	1928	D. W. Currie
1923	G. F. Walker	1929	E. J. Wayne
1924	Marjorie E. Knowles	1930	No award

West Riding Panel Practitioners' Prize

The prize is awarded annually on the result (in Medicine only), of the Final M.B., Ch.B. examinations of the same year, provided that students who are working for other qualifications and are otherwise eligible be allowed to compete, and provided that the candidate obtaining the highest number of marks is deemed by the examiners to have attained a standard worthy of the award. Candidates must have received their clinical training wholly in the Leeds General Infirmary and will not be eligible to compete after three years from the date of passing the second M.B. or equivalent examination, excluding time occupied in working for a Final B.Sc. or Primary F.R.C.S. examination.

AWARD

1928	T. L. Owen	1929	E. J. Wayne	1930	J. Shernovitch
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APPOINTMENTS FOR SENIOR STUDENTS IN THE SCHOOL OF MEDICINE

Prosectors

Three Prosectors are selected annually from the senior students, to prepare museum specimens, diagrams and dissections for demonstration purposes, under the direction of the Professor of Anatomy.

Student Assistants in the Physiology Laboratory

One or more senior students are selected from time to time to assist in the Physiology Laboratory.

Student Assistants in the Pathology and Bacteriology Laboratories

One or more senior students are selected from time to time to assist in the Pathology Laboratories and in preparing specimens for the Museum.

**APPOINTMENTS AT INSTITUTIONS
CONNECTED WITH THE SCHOOL**

At the General Infirmary at Leeds

(For particulars, see the Infirmary Section of the Medical Prospectus).

At the Leeds Public Dispensary

Four Resident Medical Officers are elected from time to time, as vacancies arise.

Clinical Assistants in the Out-patient Department are appointed by the Board on the recommendation of the Medical Faculty.

At the Leeds Maternity Hospital

Resident Medical Officer, salary £50 a year, and Assistant Resident Medical Officer, salary £25 Board, apartments and washing are provided for both officers.

At the Leeds City Fever Hospitals

Two resident appointments, a senior at £400 a year, and a junior, tenable for 6 months, at £250 a year, in each case with board, apartments and washing. Applications to the Medical Superintendent.

At the Hospital for Women at Leeds

House Surgeons, Anaesthetists and Clinical Assistants (see under "Hospital Practice" in subsequent pages).

At the West Riding Mental Hospital

Resident Clinical Assistants may be appointed for periods of not less than one month during the fourth or fifth term of their Medical curriculum, and receive board and lodging in return for their services. The duties mainly consist in visiting the wards, recording cases and assisting at autopsies, under the direction of the permanent Medical Staff. Every opportunity is afforded in the Laboratories for the prosecution of Pathological work. Applications to Professor J. Shaw Bolton, Medical Director at the Hospital

Temporary or permanent members of the Medical Staff of the Institution receive the systematic training required for the Diploma in Psychological Medicine.

HOSPITAL PRACTICE

Leeds General Infirmary

The medical and surgical practice required by medical students is taken at this Institution, which offers abundant opportunities for clinical study. Situated in the centre of a densely populated manufacturing and mining district, and drawing patients also from a wide surrounding area, its wards present an ample field for the study of diseases and injuries. The concentration of medical, surgical, gynaecological, ophthalmic, aural, children's and venereal and skin diseases in one hospital leads to much economy in time and labour to the student.

The nature of the work done in the Leeds Infirmary makes the clerkships and dresserships of great value, and the resident appointments involve so much practical work and personal responsibility as to give the holders a very varied and valuable experience. A full account of the arrangements for clinical teaching, and of the appointments¹ offered to students, will be found in the Infirmary Section of the Medical Prospectus.

The Leeds Public Dispensary

About 21,000 Medical and Surgical cases are treated annually, partly as out-patients, and partly at their own homes. There are one Senior and three Junior Resident Medical Officers.

There are 2 wards containing 20 beds for surgical cases.

The practice of the Dispensary is open to any student on application to one of the Honorary Staff

Leeds City Fever and Small Pox Hospitals

Students are admitted¹ at the Leeds City Hospitals (Medical Superintendent, Dr. J. S. Anderson) on having obtained sanction from the Dean of the Faculty of Medicine of the University of Leeds, subject to such regulations as may be made from time to time by the Leeds City Council.

¹Enquiries relating to attendance at the Infirmary should be made (through the Dean's Office) to the Clinical Sub-Dean (Mr. Moir), 29, Park Square.

Students must abide by the rules laid down as to disinfection and other matters, and must satisfy the Corporation authorities that they are sufficiently protected against small pox by vaccination.

Courses lasting two months are held in each term on two afternoons in each week.

At the Small Pox Hospital a minimum period of one week's residence may be required, with payment in advance of 12s. a week for board and lodging.

The hospitals are not open to students during April, August or September. Clinical lectures and demonstrations on infectious diseases will be given by the Medical Superintendent of the hospitals, and the attendance of students at these lectures and on the practice *must be completed during the term for which they enter.*

Special courses are held for post-graduate students taking D.P.H. courses.

Those desirous of attending the practice outside the ordinary classes or clinical instruction, and not requiring a certificate of attendance, must apply for permission to the Medical Officer of Health of the City of Leeds, at his office, 12, Market Buildings, Vicar Lane, between the hours of 10 and 11 a.m.

Hospital for Women at Leeds

The wards contain 50 beds for the treatment of gynæcological and obstetric diseases. Students are eligible to attend the practice of the hospital in accordance with the University regulations. Two resident House Surgeons, who must be legally qualified, are appointed for periods of six months, with a salary at the rate of £50 per annum with board. Two Anæsthetists, who must be legally qualified, are appointed annually. Each receives an honorarium of £20 per annum. Honorary Clinical Assistants are also appointed by the Honorary Staff. These appointments are specially valuable to those wishing to do post-graduate work in gynæcology.

Leeds Maternity Hospital

The Maternity Hospital is attached to the University of Leeds for the purposes of clinical training in Obstetrics. There are 108 beds for cases of labour, and others for the treatment of morbid pregnancy. There is also an out-patient department and large extern districts.

During last year 2,024 in-patients were treated and 654 attended in the districts.

Every student is required to take an Obstetric clerkship for three months including attendance in the intern department of the Lying-in-Hospital, and extern attendance on cases in the district. During the second and third months personal conduct of not less than twenty cases of labour is required. Residence in the Maternity Hospital Hostel is compulsory throughout this appointment.

Students when attending the Fever Hospital are not allowed to act as maternity clerks.

Students work under the immediate supervision of the Resident Medical Officer and University Tutor in Obstetrics subject to the control of the Honorary Medical Staff.

West Riding Mental Hospital, Wakefield

This Institution, which accommodates 2,250 patients, offers unusual advantages to those who desire to make themselves conversant with the treatment and management of the insane. A separate building, containing 330 beds, has been provided for the treatment of acute insanity; and 70 imbecile and idiot children are accommodated in a separate home in which they obtain special training and suitable education. Clinical lectures and demonstrations are given at the hospital by Professor J. Shaw Bolton, Medical Director, in connection with the systematic lectures on Insanity, delivered at the School of Medicine. Clinical clerkships in the wards and laboratories may be obtained for limited periods by qualified medical men and women or by senior students on application to the Medical Director. Such clinical clerks are provided with free board and lodging, and, in return for their services, receive special instruction in Psychiatry and in the morbid anatomy of Mental Disease. Temporary or permanent members of the Medical Staff of the Institution receive the systematic training required for the Diploma in Psychological Medicine.

LECTURES AND CLASSES

HELD IN THE UNIVERSITY ROAD BUILDINGS
OF THE UNIVERSITY

Physics

Introductory Course

It is very desirable that students taking this course should have an elementary knowledge of Algebra, Trigonometry and Mechanics.

The following subjects will be treated in an elementary manner, illustrated by experiments: Electricity, Magnetism, Sound, Light, Heat, and Properties of Matter.

Suitable text books will be recommended by the lecturer.

The course, which extends over the first and second terms, will consist of lectures on Monday, Wednesday and Friday, 10 to 11 a.m., and on Tuesday, 2 to 3 p.m., and of laboratory work on Wednesday, 11 a.m. to 1 p.m., and on Saturday, 10 a.m. to 12 noon.

Inorganic Chemistry

I. First M.B.

This course will consist of lectures on Monday, Thursday and Friday, at 2 p.m. during the first and second terms.

II. Practical Chemistry

During the first and second terms, on Monday, 12 to 1 and 3 to 5; and Thursday and Friday, 3 to 5.

III. Organic Chemistry

During the first and second terms of the second year on Thursday, 2 to 5 p.m., Friday, 12 noon to 1 p.m. and 2 to 5 p.m., and Saturday, 9 a.m. to 1 p.m. The course will consist of lectures on Friday at 12 noon, and Saturday at 9 a.m., and practical work for the remainder of the allotted period.

(Class III. is suitable for the examination in Organic Chemistry for the London M.B.)

IV. Sanitary Chemistry (D.P.H.)

This will be held in the Chemical Laboratory, University Road, on two days per week (Tuesday and Thursday) during the first and part of the second term from 2 to 5 p.m. It will include practical instruction or demonstrations in the examination of water, air, and foods; in the properties of gases, and the laws of heat.

SYLLABUS

Water.—Qualitative examination, quantitative examination, estimation of free and albuminoid ammonia, oxygen consumption, chlorides, nitrates and nitrites, total solids, temporary and permanent hardness, metallic impurities.

Air.—Qualitative examination of foreign gases, quantitative determination of carbon dioxide.

Food.—Qualitative or quantitative examination of milk, butter, tea, coffee, sugar, alcoholic beverages.

The Properties of Gases.—Expansion, weight, pressure, diffusion. Ventilation.

The Laws of Heat.—Expansion of liquids and solids, temperature, latent and specific heat, liquefaction, evaporation and ebullition, radiant heat.

Zoology and Botany

Medical Students preparing for the First Examination of the University of Leeds or other Licensing Body take the full courses specified in the Calendar.

Lectures on Zoology during the session on Monday and Friday at 11 a.m. Practical work in the Zoological Laboratory throughout the session on Tuesday and Thursday mornings (11 to 1). Lectures on Special Zoology on Mondays and Fridays at 12 noon to 1 p.m. throughout the session, together with 2 hours practical work to be arranged. Lectures and practical work on Botany during the third term only on Monday, 12 noon to 1 p.m., Tuesday, 2 to 5 p.m., Wednesday, 10 a.m. to 1 p.m., and Thursday, 2 to 5 p.m.

Each student will be required to provide himself with a microscope suitable also for his subsequent studies, a dissecting case, a biological drawing book and some simple instruments for microscopic work.

First M.B. students can obtain the loan of microscopes for their courses in both Zoology and Botany at the rate of 15s. each per session.

These fees must be paid in advance to the Accountant immediately after the student has arranged with the Laboratory Steward for the loan of a microscope.

A short course in Parasitology and Medical Entomology for D.P.H. students is held in the first term. For details see under department of Pathology and Bacteriology.

Meteorology and Climatology (D.P.H.)

Second half of second term, Tuesdays and Fridays 3—5 p.m.

The course will consist of lectures and practical work.

The composition of the Atmosphere.

General circulation of the Atmosphere.—Causes and Effects.—Isobars.

The moisture of the Atmosphere.—Humidity.—Cloudiness and Precipitation.

Temperature.—Influence of Land and Water upon the Distribution of Temperature.—Isotherms

Factors controlling the weather conditions over the British Isles.

Instruments.—Barometers, Thermometers, Hygrometers, Anemometers, Rain Gauges, Sunshine Recorders.

The making and interpretation of Weather Charts.

During the course visits will be made to the University Observatory for the purpose of giving instruction in the actual use of meteorological instruments.

Course in Sanitary Engineering, Building Construction, &c. (D.P.H.)

Second term, Saturdays 9-30 to 11 a.m.

Classification of Domestic and Other Buildings according to their uses, construction, and general considerations as to the arrangement of Houses in Groups. Effect of

Surroundings of the House, Open Spaces and Recreation Grounds, with examples from Town Planning Schemes.

Construction of buildings in detail, foundations, walls, roofs, floors, and ceilings, with the various methods of construction and materials used from the sanitary point of view. Drainage, Ventilation, and Heating of Buildings, including the Sanitary Fittings within the House.

General Principles of Water Supply to Districts, Towns and Houses. Quantities required. Sources of water supply from streams, rivers, wells and bore holes. Methods of estimating the yield, collection, storage, distribution, purification and sterilisation. House fittings and arrangements for hot and cold water.

Drainage of districts and towns. Consideration of the general scheme of the works from the house to the final effluent from the sewage works. Design and construction of drainage and sewerage works from the sanitary point of view. Methods of sewage disposal by irrigation, precipitation, filtration on bacteria beds, and the methods involving the use of activated sludge and bio-aeration of sewage.

House refuse and Street Refuse, its disposal by means of refuse destructors. Construction of roads and footpaths from the sanitary point of view.

To facilitate the study of the subject, models will be used where possible, with lantern slides and diagrams and visits to typical works will be arranged when time permits.

TEXT BOOK

Practical Sanitation, George Reid, M.D., 8s. 6d. (as an introduction to the subject).

Courses in Psychology for the Diploma in Psychological Medicine

A course in General Psychology is given in the Department of Education, University Road, on one day per week during the second term,

A course in Experimental Psychology is given in the same Department on one day a week during the first term.

**HELD IN THE BUILDINGS OF THE SCHOOL OF
MEDICINE OF THE UNIVERSITY IN
THORESBY PLACE**

Anatomy

Descriptive and Systematic Anatomy

The course extends over six terms.

- (a) The introductory course is held in the summer term of the first year (osteology).
- (b) The general course is held throughout the three terms of the second year and the first and second terms of the third year. To promote the association of study of form and function, the course deals first with the organs of abdomen and thorax, central nervous system and sense organs and human embryology. Special arrangements are made for students who cannot attend the introductory course in the first summer.

Practical Anatomy

The dissecting room is open during the session from 9 a.m. to 5 p.m. (Saturday to 12.30 p.m.) and in vacations except the month of August. Students are required to submit their work for examination and record in order to obtain certification that the whole body has been dissected satisfactorily. Demonstrators are in daily attendance and tutorial classes are held. Special classes are held for the Primary F.R.C.S. The rooms are only open to students who have entered for courses or paid fees for the use of the room and to students of the School who have passed the second professional and are reading for the Final examination.

Applied Anatomy

The class meets on Monday and Thursday at noon in the Anatomy theatre during the second and third terms. It is intended for senior students and qualified practitioners and is arranged to take place in the terms preceding Final examination but may be attended or repeated as the student's time-table permits.

Course for the Diploma in Psychological Medicine

A course in the development, anatomy and histology of the nervous system is given in the first term on Tuesdays and Thursdays.

Physiology

The courses in Physiology form part of the courses for the degrees of B.Sc., M.B., B.Ch.D., and L.D.S.

I. Elementary Course in Physiology

The elementary course in Physiology is specially devoted to the needs of Dental Diploma students.

Lectures.

First, Second and Third Terms : Monday, Wednesday and Friday, 9.15 a.m.

Practicals.

First and Second Terms : Biochemistry, Tuesday, 10 a.m. ; Histology, Friday, 3 p.m.

Third Term : Human Physiology, Wednesday, 10 a.m.; Experimental, Thursday, 10 a.m.

II. General and Senior Course

The complete course occupies six terms.

(a) Introductory Lectures :—

Third Term, First Year : Tuesday, 9.15 a.m.

(b) General Lectures :—

First Term, Second Year : Tuesday and Thursday, 9.15 a.m.

Second and Third Terms : Tuesday and Thursday, 9.15 a.m. ; Wednesday, 12 noon.

(c) Senior Lectures :—

First and Second Terms, Third Year : Monday, Wednesday and Friday, 9.15 a.m.

(d) **Introductory Practical Course :—**

Third Term, First Year : General Physiology,
Tuesday, 9 a.m.

(e) **General Practical Course :—**

First Term, Second Year : Histology, Wednesday,
10 a.m.

Second Term, Second Year : Experimental,
Monday and Tuesday, 10 a.m. or 2 p.m. ;
Biochemistry, Monday, 2 p.m. or Wednesday,
2 p.m. ; Histology, Wednesday, 10 a.m.

Third Term : Experimental, Monday, 10 a.m. or
2 p.m. ; Human Physiology, Wednesday, 10 a.m.
or 2 p.m. ; Histology, Friday, 2 p.m.

(f) **Senior Practical Course :—**

First Term, Third Year : Human Physiology,
Monday and Tuesday, 10 a.m. or 2 p.m. ;
Biochemistry, Monday and Tuesday, 10 a.m.
or 2 p.m. ; Histology, Thursday, 10 a.m.

Second Term : Biochemistry, Monday, 10 a.m.
or Tuesday, 10 a.m. ; Human Physiology,
Wednesday, 2 p.m. or Thursday, 10 a.m.

During the third term of the second year and the first
and second terms of the third year students will be
required to attend a tutorial class for one hour per week.

III. Revision Classes

Revision classes are held each term at times to be
arranged.

IV. Applied Physiology

A course of lectures and practical work on Human
Physiology and its application forms part of the general
and senior courses in Physiology.

V. Advanced Physiology

A course of advanced lectures and practical work for
students taking the Honours degree of B.Sc. is held
throughout the year ; for details consult Calendar.

VI. Bio-Chemistry

A course of advanced lectures will be given throughout the year ; 1 hour per week, at times to be arranged.

VII. Comparative Physiology

A course of lectures and practical work will be given at times to be arranged.

VIII. Course for Primary Fellowship Examination

A special course in Physiology will be given if required.

IX. Course for the Diploma in Psychological Medicine

A course in the physiology of the nervous system is given on two afternoons a week during the first term ; and a course in the physiology of the organs of special sense for a like period during the second term.

X. Research in Physiology

Students or others desiring to pursue, or to assist in, original investigations in Physiology will be admitted to the laboratories throughout the year by arrangement with the Professor. They will be personally responsible that the apparatus they employ is not broken or misused.

Apparatus

Students are required to provide themselves with :—

- (a) A good microscope, with $\frac{2}{3}$ " and $\frac{1}{8}$ " objectives. The Professor will be glad to assist students in the choice of an instrument. Students will not be allowed to attend the class unless provided with a suitable instrument.
- (b) Accessories : scissors, forceps, needles in handles, slides and coverglasses, etc.

No apparatus may be removed from the Laboratory without the permission of the Professor, and then only on furnishing a written receipt.

The workshop is private and not to be used without permission.

Pathology and Bacteriology

The principal courses for medical students (I, II and III) extend over the first and second clinical years, and in addition there is a short course in clinical pathology (IV) in the third clinical year. Each course comprises both lectures and practical work. For Courses I, II, III, IV, VI, and VII students must be provided with a good microscope, having an oil immersion lens and substage condenser.

I. General Pathology

First term of first clinical year : Tuesday, Wednesday and Friday from 12 noon to 1 p.m.

Second term of first clinical year : Monday and Thursday, from 12 noon to 1 p.m.

The subjects dealt with are the vascular disturbances, the retrogressive tissue changes, inflammation and repair, atrophy, hypertrophy and new growth, and the pathology of animal parasitism.

Each student is supplied with a series of illustrative microscopic preparations for which a small charge, sufficient to cover the cost of materials, is made. Students must provide their own slide boxes, which should be large enough to take a gross of slides. This box will take also the preparations made in the course in Bacteriology.

II. Bacteriology and Immunology

Third term of first clinical year : Tuesday, Wednesday and Friday, from 12 noon to 1 p.m., and Thursday, from 2 to 5 p.m.

This course starts with a general survey of the morphology, classification, nutrition, multiplication and death of bacteria ; and of their rôle in nature. After this the phenomena of immunity are discussed and the different groups of bacteria important in the causation of disease. The pathogenic protozoa and fungi, the rôle of insect vectors of disease, and finally the present state of knowledge with regard to the production of disease by filter-passing viruses are considered.

The practical part of the course includes the observation of bacteria by means of cultivation and the microscope and the demonstration of the phenomena of immunity, on which the various diagnostic, prophylactic and curative applications of bacteriology are based.

Students who commence their clinical work in April take Course II. first: those who start in October Course I.

III. Special Pathology

First term of second clinical year: Monday and Thursday from 12 noon to 1 p.m.

Second term of second clinical year: Tuesday, Wednesday and Friday from 12 noon to 1 p.m.

The subject-matter of this course includes the pathology of the principal infective diseases and the special pathology of the various systems of the body.

A loan-collection of slides is supplied to each student at the beginning of this course on payment of a deposit of £1. All boxes of slides must be returned in good order not later than the 15th September following the date of issue, when the deposit money, less any charges for breakages, will be refunded.

IV. Clinical Pathology

Third term of third clinical year: Monday and Friday from 4 to 5 p.m.

In this course the clinical applications of pathology (including chemical pathology and bacteriology) to the diagnosis of disease are considered in greater detail.

V. Tutorial Classes in Medical, Surgical and General Pathology

will be held by Dr. Burrow, Mr. Richardson and Demonstrators as may be arranged from time to time.

VI. Pathology and Bacteriology for Dental Students

This course, comprising both lectures and practical work, is held on Mondays and Thursdays during the first and second terms, from 2 to 3.30 p.m. Two thirds of the course is devoted to general pathology and bacteriology, one third to special dental pathology and bacteriology.

VII. Bacteriology and Parasitology for the Diploma in Public Health

This course is drawn up in accordance with the regulations of the University for the Diploma in Public Health. In the first term instruction in medical entomology and parasitology is given from 10.15 a.m. to 12.15 p.m. on Saturdays, in the Department of Zoology at University Road. The remainder of the course is held in the Medical School in the first and second terms from 2 to 5 p.m. on Mondays, Wednesdays and Fridays.

SYLLABUS.

A Course in Department of Zoology. (First term).

1. Helminthology.

General morphology and bionomics of trematodes, cestodes and nematodes. Distribution and control.

Diagnosis, prophylaxis and treatment of helminthic infections: the schistosomiasis, filarial infections, ankylostomiasis, etc., Minor helminthic infections.

2. Medical Entomology.

(a) General morphology, bionomics and classification of insects injurious to man.

Blood-sucking and non-blood-sucking flies, bugs, fleas and lice.

The distribution, control and extermination of insect pests, in particular the transmitters of malaria, yellow fever, filariasis, relapsing fever, the trypanosomiasis, plague, typhus, etc.

(b) Morphology and bionomics of mites and ticks, their distribution and relation to transmission of disease.

B Course in Department of Pathology and Bacteriology.

(1) First term.

(a) Bacterial morphology. The use of the microscope.

(b) Theoretical and practical aspects of the cultivation of bacteria.

(c) Bacterial metabolism.

(d) Bacteria of soil, water and air.

(e) Bacterial decomposition of food stuffs.

(f) Phenomena of immunity and methods of observation of disease in experimental animals.

(2) Second term.

Systematic study of all the more important pathogenic bacteria and protozoa and their connection with disease.

Each student must be provided with a microscope approved by the Professor. The microscope must have an oil immersion lens and substage condenser.

VIII. Neuropathology for the Diploma in Psychological Medicine

A course in the pathology of the nervous system is given on one afternoon per week during the third term. The course comprises both lectures and practical work.

SYLLABUS.

General pathology of the nerve cell and fibre, and of the glia cell.

The cerebrospinal fluid in relation to disease processes.

Pathological aspects of the more important diseases of the nervous system.

IX. Bacteriology for Science Students

A. Elementary course.

This course is held during the second term on Mondays, Wednesdays and Fridays, from 2 to 5 p.m. Each meeting includes a lecture and practical work.

SYLLABUS.

The first half of the course is combined with that for the D.P.H., items *a*, *b*, *c*, *d*.

The second half includes an elementary discussion of the phenomena of immunity and a systematic study of bacteria based on their metabolic and morphological characteristics.

In addition to serving as an introduction for those who wish to study bacteriology for the purposes of a degree in pure science, this course is intended for students of chemistry and technology. It should give the latter a grasp of bacteriological technique and sufficient knowledge of bacterial activities to encourage them in applying bacteriological methods to their special problems when occasion arises.

B. Honours course.

This course will extend through the three terms at hours to be arranged.

The subjects treated will be :—

- I. Bacteriological technique.
- II. Bacterial metabolism.
- III. Immunity and experimental bacteriology.

X. The Laboratories of Pathology and Bacteriology

The laboratory facilities of the Department of Pathology and Bacteriology are available for research work by arrangement with the Professor concerned. The fees are

on the same scale as in other laboratories of the University.

In this Department the pathological and bacteriological work required by the City of Leeds, the General Infirmary at Leeds, and other bodies, is carried out.

Principles and Practice of Medicine

Instruction is given as follows :—

1. Lecture courses, general and special.

(a) Introductory and general—summer term, 9.0 a.m.

(b) General Medicine, Dietetics and Metabolic Medicine. First winter term, 9.0 a.m.

(c) Clinical lectures on selected subjects. Second winter term, 9.0 a.m. (Professor of Clinical Medicine).

(d) Lecture courses on special subjects. Second winter term, 4.0 p.m.

(For time-table details see later pages).

2. Instruction by Medical Tutor.

(a) Special tutorial classes with instruction in laboratory tests and examinations.

(b) Training in physical diagnosis in the Wards.

(c) Revision classes.

3. Ward and out-patient teaching by the Honorary Staff in :—

(a) General Medicine.

(b) Diseases of Infancy and Childhood.

(c) Dermatology and Venereal Diseases.

4. Receiving room. Instruction by the Medical Receiving Room Officer is given in minor medical and emergency cases.

5. Medical Radiology and Electro-therapeutics.

(a) Lecture courses during the first and second terms, 4.0 p.m.

(b) Practical demonstrations by the Departmental Officers.

(For time-table details see later pages).

Clinical Neurology for the Diploma in Psychological Medicine

This course is given on one day per week during the first and second terms.

Diseases of Infancy and Childhood

During the first term of the second clinical year students will attend a course of lectures in this subject, held on Mondays and Wednesdays, at 4.0 p.m. The lectures should be attended previous to holding the clerkship in the Children's Department:—

The principles of infant feeding and the care and welfare of young children.

The diseases of the new born.

The digestive and nutritional diseases of children.

The common diseases in connection with the respiratory, urinary and muscular systems.

The nervous child and the diseases of nervous children.

The common diseases of the skin as seen during childhood.

The infective diseases especially in connection with syphilis, tuberculosis, rheumatism and pneumococcal infections.

The common infectious diseases—whooping cough, measles, etc.

The anæmias and blood disorders of childhood.

Pharmacology

A course of lectures and practical work, covering one hour each week from 12 noon to 1 p.m., will be given during the first and second years of the clinical period.

Special demonstrations will be given at times to be arranged.

Pharmacy

In July at hours to be arranged.

Materia Medica.—Sources, preparation, physical characters, pharmacopœial combinations, tests, doses and general uses of the principal official drugs.

Practical Pharmacy.—General pharmaceutical processes; prescriptions; weights and measures; the compounding of a large series of typical prescriptions, including mixtures, pills, powders, cachets, emulsions, lotions, plasters, ointments, &c. The best methods of dispensing the principal drugs. Incompatibility. Tests for detection of impurities in pharmacopœial preparations and chemicals.

The first hour is given to demonstration and tutorial teaching in materia medica, the remaining time being devoted to practical pharmacy.

Therapeutics

Mondays, Wednesdays and Fridays at 4 p.m., during the Second term of the third clinical year.

The course will include consideration of (a) the general principles of the treatment of disease; (b) the physiological and therapeutical action of drugs and the mode of their administration; (c) the use of remedial measures other than drugs, including heat, cold, massage, electricity, climatic and dietetic treatment, and will be illustrated by practical demonstrations.

Surgery and Clinical and Practical Surgery

The demonstrations in surgical subjects will be given by the Assistant Surgeons of the Infirmary on Tuesdays and Fridays in the second and third terms at 9 to 10 a.m.

These lectures are supplemented by:

(a) Preliminary instruction and recapitulatory classes by the surgical tutors.

(b) Practical demonstrations by the Assistant Surgeons in conjunction with the Medical Staff of the Infirmary and the Radiographer.

(c) Instruction by the Staff Surgeons in—

- (1) Ward teaching.
- (2) Clinical lectures (singly or in series).
- (3) Lecture Demonstrations.

(d) Demonstrations of operations upon the cadaver.

These demonstrations are carried out in conjunction with the Departments of Anatomy, Physiology and Pathology.

Operative Surgery

Classes will be formed for the performance of operations on the dead body, under the superintendence of the lecturer at times to be arranged. As all the important operations will be done by the students, every opportunity will be given for gaining practical experience in this branch of surgery. Fee—£18 18s. divided in equal shares among a class of not more than four students.

Orthopædic Surgery

Lectures and demonstrations in Orthopædic Surgery will be given on Mondays and Fridays, during the second term at 4 p.m.

Obstetrics

Tuesdays, Fridays and Saturdays, during the First Term at 9 a.m.

The female pelvis and organs of reproduction. Menstruation, Ovulation, Fertilization, Implantation.

Pregnancy—normal and abnormal. Diseases of pregnancy. Abortion.

The foetus membranes and placenta. Diseases of the same.

Pre-maternity work.

Labour—normal and abnormal. Mechanism and management.

Pelvic deformity.

Obstetric instruments and obstetric operations.

The puerperal state and its pathology.

The lectures will be illustrated by diagrams, models, lantern slides and pathological specimens.

The various presentations will be demonstrated on the Phantom, and practical instruction given in the use of obstetrical instruments.

Tutorial classes are also held from time to time for students preparing for their final examinations.

The necessary facilities for clinical instruction in obstetrics are given by the Leeds Maternity Hospital.

Gynæcology

Mondays, Wednesdays and Thursdays at 9 a.m. in the third term.

The course comprises :—

The structure and functions of the female reproductive organs in relation to pathology and treatment.

A general account of the causation and prevention of gynæcological disease.

The relation of gynæcological disease to the neuroses and other general diseases.

A systematic account of the various diseases peculiar to women ; their pathology, diagnosis, and treatment.

Public Health

Tuesday and Saturday. at 9 a.m. during the First Term.

Meteorology and Climatology.

Building Construction and Housing.

Water and Water Supplies.

Drainage, Sewage Disposal and Removal of Refuse.

Air, Ventilation, Heating and Lighting.

Food and Dietetics, including Milk supply.

Infectious diseases, including Tuberculosis and Venereal Disease.

Disinfection.

Maternity and Child Welfare.

Medical Inspection of School Children.

Vital Statistics.

The Law relating to Public Health.

Arrangements are made during the summer term for visits to places of public health interest. These are open to all students, and a programme is published at the beginning of the term.

N.B.—For candidates for the Diploma in Public Health, additional lectures are necessary, dealing more fully with the above subjects. When there are such students, the time of the ordinary lecture will be extended to 10.30 a.m.

Forensic Medicine

Monday, Tuesday, Thursday and Friday, at 9 a.m. during the Second Term.

The qualifications, duties, and responsibilities of medical witnesses.

Questions concerning age, sex, identity, insanity and life insurance.

Death :—Real and apparent death ; date of death ; causes of sudden and violent death ; post-mortem examinations.

Death by wounds ; by lightning, burns, cold and starvation ; by drowning, hanging, strangling and suffocation.

Rape ; pregnancy ; delivery ; the legitimacy of children ; abortion ; infanticide.

Toxicology :—General considerations respecting poisoning ; toxicological processes and the evidence of poisoning ; symptoms of special poisons and treatment.

Ophthalmology

Monday and Friday at 9 a.m. during half of the First Term.

Method of examination of the eye. Surgical anatomy and diseases of the conjunctiva, of the eyelids, of the lacrymal apparatus, of the sclerotic, of the cornea, of the iris and ciliary body and of the lens. Glaucoma. Theory of the ophthalmoscope. Diseases of the vitreous, of the

choroid, of the retina and of the optic nerve. Diseases of the orbit. Retinoscopy. Errors of refraction and of accommodation. Affections of the ocular muscles.

Otology

Monday and Friday at 9 a.m. during half of the first term.

Instruction is given on the more important diseases of the ear, nose and throat.

Illustrative cases will be shown and practical demonstrations given on their examination.

Mental Diseases

Systematic Lectures are given at the School of Medicine on Tuesday and Thursday at 4 p.m., and clinical lectures and demonstrations at the West Riding Mental Hospital on Wednesday at 3 p.m. during the third term.

The systematic lectures include :—

The mode of development, histological structure and functions of the cerebral cortex.

The elements of psychology.

The pathology, symptoms, medico-legal relations and treatment of mental disease.

The clinical course will embrace :—

Illustrations of the various forms of mental disease ;

Instruction in the method of examining insane persons ;

Practical demonstrations on the moral and therapeutic treatment of the Insane ; compulsory feeding, &c.

Filling up certificates of Insanity.

Class examinations.

The pathological aspects of Insanity will be freely illustrated by lantern slides, morbid specimens and microscopic preparations from the asylum museum.

Courses for the Diploma in Psychological Medicine

Candidates for this diploma are required to attend the above course of systematic lectures and clinical instruction, and in addition a special course of five lectures on morbid psychology.

Radiology and Electro-therapeutics

A short course of lectures in Radiology is given during the second term of the second clinical year on Wednesdays at 4 p.m., and in Electro-therapeutics during the first term of the third clinical year, on Fridays, at the same time.

**COURSES HELD UNDER ARRANGEMENT WITH
THE CITY OF LEEDS HEALTH
AND OTHER AUTHORITIES****Vaccination**

This instruction is given under the control of the Local Government Board at the General Infirmary at Leeds by Dr. F. W. M. Greaves, Instructor in Vaccination. Classes commence in October, February, and May, each consisting of seven meetings, six of which must be attended, and four of them consecutively, Thursdays at 2 p.m. Application to be made to the Dean. Not more than ten students can be admitted to any one class.

Infectious Diseases

(Particulars are given under "Hospital Practice" in previous pages).

**Attendance at a Hospital for
Infectious Diseases (for D.P.H.)**

A special course is given in the Leeds City Hospitals in accordance with the requirements of the General Medical Council for the D.P.H.; this includes instruction in administration. Times of attendance to be determined by arrangement.

**Instruction in Epidemiology, Vital Statistics
and Sanitary Law and Administration,
and Sanitary Work (for D.P.H.)**

Special lectures on Epidemiology, Vital Statistics and Sanitary Law and Administration will be given in the office of the Medical Officer of Health, 12, Market Buildings, on the evenings of Monday and Thursday, from 5.30 to 7.30 p.m. during the first term. With the sanction of the Public Health Committee of the Leeds City Council, the Medical Officer of Health will arrange courses of instruction of six months duration in out-door and office sanitary work, as required by the General Medical Council, at convenient times. These courses will include

	Attendances
(a) Maternity and Child Welfare Service ...	6
(b) Health Service for Children of School Age	6
(c) Venereal Diseases Service	6
(d) Tuberculosis Services	6
(e) Industrial Hygiene... ..	--
(f) Inspection and Control of Foods, including meat and milk	—

(Subject to any necessary alteration)

FOR STUDENTS ENTERED IN OCTOBER, 1923, AND AFTER.

Lectures and Practical Classes	HOURS.					
	M	Tu.	W.	Th.	F.	S.
NORMAL COURSE.						
FIRST YEAR.						
1st TERM.						
Inorganic Chemistry--						
Lectures	2-3	..	..	2-3	2-3	..
Practical	12-1	..	..	3-5	3-5	..
Physics—Lectures ..	3-5	..	..	..	..	..
" —Practical	10-11	2-3	10-11	..	10-11	..
Zoology—Lectures ..	..	..	11-1	..	..	10-12
" —Practical	11-12	..	..	..	11-12	..
2nd TERM.						
Inorganic Chemistry--						
Lectures	2-3	..	..	2-3	2-3	..
Practical	12-1	..	..	3-5	3-5	..
Physics—Lectures ..	10-11	2-3	10-11	10-11	10-11	..
" —Practical .. ..	..	..	11-1	..	..	10-12
Zoology—Lectures ..	11-12	..	..	..	11-12	..
" —Practical .. ..	..	11-1	..	11-1	..	..
First M.B. Part I Examination, March (and September).						
3rd TERM.						
Zoology—Lectures ..	11-12	..	..	..	11-12	..
" —Practical .. ..	..	11-1	..	11-1	..	..
Botany—Lectures ..	12-1	..	10-1	..	..	..
" —Practical .. ..	..	2-5	..	2-5	..	..
Introductory Anatomy	9-15	..	..	9-15	..	..
" Physiology .. ..	..	9-15	..	..	..	..
First M.B. Part II Examination, June (and September).						
SECOND YEAR.						
1st TERM.						
Organic Chemistry ..	..	..	..	2-5	12-5	9-1
Anatomy—Lectures ..	9-10	..	9-10	..	9-10	..
" —Practical	10-4	2-4	2-4	..	10-12	..
Physiology—Lectures	..	9-10	..	9-10	..	..
" —Practical .. ..	..	10-12	10-12	10-12	..	..
2nd TERM.						
Organic Chemistry ..	..	..	..	2-5	12-5	9-1
Anatomy—Lectures ..	9-10	..	9-10	..	9-10	..
" —Practical .. ..	..	..	2-4	10-12	10-12	..
Histology—Practical ..	10-12	..	..	..	..	..
Physiology—Lectures	..	9-10	12-1	9-10	..	..
" —Practical	2-4	10-4	10-12	..	..	..
First M.B. Part III. Examination, March (and September).						

TIME TABLES

(Subject to any necessary alterations).

FOR STUDENTS EXEMPT FROM INORGANIC CHEMISTRY AND PHYSICS.

Lectures and Practical Classes.	HOURS.					
	M.	Tu	W	Th.	F.	S.
FIRST YEAR.						
1st TERM.						
Zoology—Lectures ..	11-12	..	..	..	11-12	..
„ —Practical ..	..	11-1	..	11-1	..	..
Special Zoology ..	12-1	..	..	..	..	..
Organic Chemistry ..	..	..	..	2-5	12-5	9-1
2nd TERM.						
Zoology—Lectures ..	11-12	..	..	..	11-12	..
„ —Practical ..	..	11-1	..	11-1	..	..
Special Zoology ..	12-1	..	..	..	..	..
Organic Chemistry ..	..	..	..	2-5	12-5	9-1
First M.B. Part III Examination, March (and September)						
3rd TERM.						
Zoology—Lectures ..	11-12	..	..	..	11-12	..
„ —Practical ..	..	11-1	..	11-1	..	..
Botany—Lectures ..	12-1	..	10-1	..	..	..
„ —Practical ..	..	2-5	..	2-5	..	..
Introductory Anatomy ..	9-15	..	..	9-15	..	..
„ Physiology ..	..	9-15	..	..	..	..
First M.B. Part II. Examination, June (and September).						
SECOND YEAR.						
1st TERM.						
Anatomy—Lectures ..	9-10	..	9-10	..	9-10	..
„ —Practical ..	10-4	..	2-4	..	10-12	..
Physiology—Lectures ..	..	9-10	..	9-10	..	..
„ —Practical ..	..	..	10-12	..	..	..
2nd TERM.						
Anatomy—Lectures ..	9-10	..	9-10	..	9-10	..
„ —Practical ..	..	..	2-4	10-1	10-12	..
Histology—Practical ..	..	..	10-12	..	..	..
Physiology—Lectures ..	..	9-10	12-1	9-10	..	..
„ —Practical ..	2-4	10-12 OR 2-4	2-4	..	..	..

TIME TABLES—continued

FOR STUDENTS DURING CLINICAL PERIOD, IN ADDITION TO INFIRMARY WORK.

Lectures and Practical Classes.	Hours.					
	M.	Tu.	W.	Th.	F.	S.
THIRD YEAR—contd.						
3rd TERM.						
Bacteriology and Immunology .. ..	..	12-1	12-1	2-5	12-1	..
Medicine—Introductory ..	9-10	..	..	9-10	..	..
Surgery—Introductory ..	..	9-10	..	..	9-10	..
FOURTH YEAR.						
1st TERM.						
Pharmacology	12-1	..	..	..	..	..
General Pathology .. ..	..	12-1	12-1	..	12-1	..
Medicine .. ..	..	4-5	..	4-5	..	..
„ —Dietetic and Metabolic .. ..	..	..	9-10	..	..	..
2nd TERM.						
Pharmacology .. ..	..	12-1	..	..	..	..
General Pathology	12-1	..	..	12-1	..	..
Medicine—Clinical .. ..	..	..	9-10	..	..	..
„ —Special Subjects ..	..	4-5	..	4-5	..	..
Surgery .. ..	..	9-10	..	..	9-10	..
Radiology .. ..	..	..	4-5	..	..	..
3rd TERM.						
Pharmacology .. ..	..	12-1	..	..	..	..
Surgery .. ..	..	9-10	..	..	9-10	..
Gynaecology	9-10	..	9-10	9-10	..	..
Mental Diseases .. ..	..	4-5	*3-5	4-5	..	..
*At Wakefield.						
FIFTH YEAR.						
1st TERM.						
Pharmacology .. ..	..	12-1	..	..	..	..
Special Pathology	12-1	..	..	12-1	..	..
Medicine .. ..	..	4-5	..	4-5	..	..
„ —Dietetic and Metabolic .. ..	..	..	9-10	..	..	..
Obstetrics .. ..	..	9-10	..	..	9-10	9-10
Diseases of Children ..	4-5	..	4-5	..	..	..

TIME TABLES—continued

FOR STUDENTS DURING CLINICAL PERIOD, IN ADDITION TO INFIRMARY WORK.

Lectures and Practical Classes	Hours.					
	M.	Tu.	W.	Th.	F.	S.
FIFTH YEAR—contd.						
2nd TERM.						
Pharmacology	12-1	..	..	..	..	..
Special Pathology .. ..	..	12-1	12-1	..	12-1	..
Medicine—Clinical .. ..	..	..	9-10	..	..	..
" —Special Subjects ..	..	4-5	..	4-5	..	..
Surgery .. .. .	..	9-10	..	..	9-10	..
Orthopædics	4-5	..	..	..	4-5	..
Final M.B. Part I. Examination, March (and September).						
3rd TERM.						
Applied Anatomy	12-1	..	..	12-1	..	..
Clinical Pathology	4-5	..	..	..	4-5	..
Surgery .. .. .	..	9-10	..	..	9-10	..
Mental Diseases (if not previously taken) .. ..	..	4-5	*3-5	4-5	..	..
* At Wakefield.						
SIXTH YEAR.						
1st TERM.						
Medicine .. .. .	..	4-5	..	4-5	..	..
" —Special Subjects ..	..	..	9-10	..	..	..
Electro-Therapeutics ..	..	..	..	..	4-5	..
Ophthalmology and Otology	9-10	..	..	..	9-10	..
Public Health .. .. .	..	9-10	..	..	..	9-10
2nd TERM						
Applied Anatomy	12-1	..	..	12-1	..	..
Medicine—Clinical .. ..	..	..	9-10	..	..	..
" —Special Subjects ..	..	4-5	..	4-5	..	..
Forensic Medicine	9-10	9-10	..	9-10	9-10	..
Therapeutics	4-5	..	4-5	..	4-5	..
Medical Pathology— Tutorials .. .. .	..	12-1	..	..	..	..
Gynæcological Pathology— Tutorials .. .. .	..	..	..	..	12-1	..
Surgical Pathology— Tutorials .. .. .	..	..	12-1	..	..	..
Final MB. Parts II. and III. Examination, March (and September) can be taken separately, but Part II. must be taken first.						

FEES**General Regulations**

The composition fees for lecture and laboratory courses may be paid either sessionally, in advance, or (with certain exceptions) terminally by instalments. Fees paid by instalments are at a slightly higher rate than when paid in advance. The terminal instalment scales of fees are not applicable to students ordinarily resident outside the British Isles; such students must pay fees sessionally in advance.

A student ceasing, for any reason whatsoever, to attend at the University during the session has no claim to a return of fees.

A student who elects to pay composition fees by instalments and who withdraws from the University before the end of a session must pay the whole of the remaining instalments of the session's fee.

On presentation of a form signed by the Dean of the Faculty authorising attendance upon courses of study, and upon payment of the requisite fees, the Accountant will issue a class ticket entitling the student to attend such courses. This class ticket must be presented by the student, before commencing attendance, to the Professors or Lecturers whose classes or lectures he is authorised to attend.

Students are required to pay a Registration Fee of £2 when their application for admission to the University is accepted. The registration fee for students for the Diploma in Nursing is £5 5s.

Fees may be paid either in the Dean's Office, School of Medicine, or in the Students' Section, University Road. Cheques should be made payable to "The University of Leeds."

N.B.—Increase in Composition Fee applicable to students who commence a course in the University in Session 1930-31 or after.

For students who commence a course in Session 1930-31 or after, Composition Fees will be increased by £1 per session as compared with the Composition Fees payable by students who commenced their course prior to 1930-31. This increase of £1 is in respect of an increase in the proportion of the Composition Fee which is allocated to University Union Funds. The old and the new scales of fees are set out below.

I. Composition Fees

(Including Union Fees but excluding Maternity Hostel Fee—
See Section II).

Fee payable by students
who commenced their
Medical course prior to
Session 1930-31.

Fee payable by students
who commence their
Medical course in Session
1930-31 and after.

i) Fees when paid sessionally in advance :—

Course A (Complete course including pre-registration course)	Total composition fee £255 payable in four annual instalments of £50 a fifth instalment of £40 and a final instalment of £15.	Total composition fee £260 payable in four annual instalments of £51 a fifth instalment of £41 and a final instalment of £15.
Course B (For students excused Inorganic Chemistry and Physics)	Total composition fee £240 payable in four annual instalments of £50 and a final instalment of £40.	Total composition fee £245 payable in four annual instalments of £51 and a final instalment of £41.
Course C (For students excused First M.B., Ch.B. course)	Total composition fee £240 payable in four annual instalments of £50 and a final instalment of £40 (except in cases of students who pursue a course for the First M.B. at Huddersfield Technical College, which is affiliated to the University, when the fee shall be £230, payable in four annual instalments of £50 and a final instalment of £30; or if paid in one sum £217)	Total composition fee £245 payable in four annual instalments of £51 and a final instalment of £41 (except in cases of students who pursue a course for the First M.B. at Huddersfield Technical College, which is affiliated to the University, when the fee shall be £235, payable in four annual instalments of £51 and a final instalment of £31; or if paid in one sum £222)
Course D (For students excused the First and Second M.B., Ch.B. course and who only require the Course for the Clinical period)	Total composition fee £156 payable in three annual instalments of £52	Total composition fee £159 payable in three annual instalments of £53

(ii) Fees when paid in one sum at the beginning of a Medical Course :—

Course A	£237	£242
Course B	£225	£230
Course C	£225	£230
Course D	£150	£153

iii) Fees when paid by terminal instalments :

The composition fees for Course A, B, C or D (above) may be paid by terminal instalments (due on the first day of each term) at a rate slightly higher than when paid sessionally, i.e. :—									
First term ..	£27	£27	£25	£25	£20	£20			
Second term ..	£17	£16	£17	£16	£14	£13			
Third term ..	£11	£11	£11	£11	£9	£9			
In lieu of sessional fees of	£53	£52	£51	£50	£41	£40			

II. Maternity Hostel Fee

Students attending Course A, B or C, and those attending Course D who proceed to a Leeds University degree, must, in addition to the Composition Fee, pay a fee of £39 in respect of 13 weeks' compulsory residence in the University Maternity Hostel. Students taking an external degree or diploma *must* go into residence in the Hostel.

The fee is payable in one sum not later than the first day of residence in the Hostel—normally about the end of the second Clinical year of the Medical Course.

III Deposits

(a) Laboratory :—

Students in the Departments of Physiology and Chemistry, in addition to purchasing a recognised set of apparatus, shall deposit a sum of 30s. at the beginning of their course. From this sum, 10s. shall be deducted as payment for rent of locker and the use of apparatus; the balance of £1 being repaid to the student at the end of the course after deduction of cost of breakages, etc., in the Physiology and Chemistry Departments.

(b) Library :—

A deposit of 10/6 must be made by all students at the time the second instalment of the Composition Fee is paid. This deposit is intended to cover the cost, or a proportion of the cost of replacing any book borrowed from the library and not returned. Where the cost of replacement exceeds 10/6, the student will be called upon to pay the balance together with a further deposit of 10/6.

The Library deposit will be refunded to the student at the end of the Medical course.

IV. Fees for Recapitulatory Courses

If additional courses are rendered necessary through failure in examination or unsatisfactory attendance, fees at the following rates will be charged.

Physics, Chemistry, Zoology, Botany :—

First lecture hour per week in a class	..	£4 per session.
Each hour per week beyond the first	..	£2 ,,
Each hour per week of laboratory work	..	£2 ,,

For two terms three-quarters of these amounts will be charged.
For one term half of these amounts will be charged.

Anatomy (six months)	£8
Physiology (six months)	£14
Anatomy and Physiology (concurrently)	£18
Other subjects (three months)	£3

Additional Clinical Fee.

If a student exceeds the period of three years for his clinical studies, a fee of £15 shall be charged for each extension period of six months or part of six months.

V. Separate Fees (M.B., Ch.B., etc.)

Section 1 (1st Exam.)—	£	s.	d.
Physics, Lectures	8	0	0
Physics Laboratory	6	0	0
Chemistry (Inorganic)	15	0	0
Zoology	14	0	0
Botany	7	10	0

Section 2 (2nd Exam.)—			
Chemistry (Organic)	15	0	0
Introductory Anatomy	3	0	0
General Course Anatomy	18	0	0
Use of dissecting Room, with tutorial instruction, during attendance on the Anatomical Course, covering six terms	18	0	0
Use of Dissecting Room (External Students)—			
One month	2	0	0
Three months	5	0	0
Physiology—			
1st term	3	0	0
General Course	18	0	0
Practicals—			
Comparative Physiology	3	0	0
Bio-Chemistry	10	0	0
Experimental Physiology	10	0	0
Human Physiology	8	0	0
Histology	8	0	0
Materia Medica and Practical Pharmacy	5	0	0

Section 3 (Final Exam.)—			
Pharmacology—			
Lectures	3	0	0
Practicals	5	0	0
Therapeutics	3	0	0

					£	s.	d.
General Pathology	..	..	..	..	7	0	0
Special Pathology	..	..	..	..	7	0	0
Clinical Pathology	..	..	..	..	3	0	0
Medicine (including a second course and Clinical Medicine)	..	..	..	..	9	0	0
Surgery (including Clinical and Practical Surgery)					15	0	0
Obstetrics	..	£7	0	0	} If paid at one time	9	0
Gynæcology	..	£4	0	0			
Forensic Medicine	..	..	..	..	8	0	0
Ophthalmology and Otology	..	..	..	..	5	0	0
Mental Diseases	..	..	..	..	5	0	0
Public Health	..	..	..	..	5	0	0
Infectious Diseases	..	..	..	..	3	10	0
Vaccination	..	..	..	..	2	10	0
Intern Maternity	..	..	..	..	3	10	0
Radiology and Electro-Therapeutics	..	..	..	..	3	0	0
Orthopædics	..	..	..	..	5	0	0
Diseases of Children	..	..	..	..	3	10	0

VI. (a) Post-Graduate and Miscellaneous Courses

Clinical Pathology	..	..	..	..	..	4	4	0
Medical Pathology	..	..	..	..	..	3	3	0
Surgical Pathology	..	..	..	..	..	3	3	0
Operative Surgery	..	..	..	..	..	4	14	6
Tropical Medicine	..	..	..	..	..	5	0	0
Intelligence Tests (for D. Psychol. Med.)	..	..	..	..	..	1	1	0
Anatomy, Physiology, and Pathology (for D. Psychol. Med.)	..	..	..	..	..	6	6	0
Clinical Neurology	..	..	..	..	..	3	3	9
For D.P. Health—								
†Chemistry	..	..	..	..	..	8	8	0
Practical Bacteriology (including Entomology)	..	..	..	..	..	14	14	0
Practical Bacteriology (Recapitulatory)	..	..	..	..	..	9	9	0
Lectures in Public Health	..	..	..	..	..	5	5	0
Meteorology and Climatology	..	..	..	..	..	1	1	0
Sanitary Construction and Planning	..	..	..	..	..	2	2	0
Special Course at Infectious Diseases Hospital	..	..	..	..	..	7	7	0
Special Course in Sanitation, &c. (M.O.H., Leeds)	..	..	..	..	..	22	1	0
Agricultural and Technical Bacteriology (per term)	..	..	..	..	..	7	0	0

† A deposit fee of £2 2s. 6d. in addition to cover breakages.

(b) Hospital Practice and Clinical Lecture Fees

(applicable to Post-graduate and External Students).

The fees include clinical lectures in the subjects taken out, and students shall be eligible for hospital appointments.

		1 month.			3 months.			6 months.			12 months.		
		£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
All subjects	..	8	0	0	16	0	0	24	0	0	32	0	0
Medicine	..	4	10	0	9	0	0	13	10	0	18	0	0
Surgery	..	4	10	0	9	0	0	13	10	0	18	0	0
Ophthalmology	..	3	0	0	6	0	0	9	0	0	12	0	0
Ear, Nose and Throat	..	3	0	0	6	0	0	9	0	0	12	0	0
Dermatology	..	2	10	0	5	0	0	7	10	0	10	0	0
Gynæcology	..	2	10	0	5	0	0	7	10	0	10	0	0
Diseases of Infants	..	2	10	0	5	0	0	7	10	0	10	0	0
Casualty	..	3	0	0	6	0	0	9	0	0	12	0	0
Electro-therapeutic Dept.	..	3	0	0	6	0	0	9	0	0	12	0	0
Obstetric Practice (20 cases),	£3	0	0										

Students of the Leeds Medical School who have taken the full clinical course and have registered as medical practitioners become *ipso facto* Perpetual Students of the Infirmary without further charge. This privilege will admit to the ordinary clinical instruction of the Infirmary, but will not cover the attendance at any special post-graduate course for which fees may be charged.

Other qualified practitioners who wish to take further hospital practice can be admitted as "perpetual students" of the Infirmary on payment of a fee of £15 15s.

Practitioners and External Students wishing to attend the Infirmary practice during short periods, and not requiring Signatures or Certificate of any kind, or to hold any hospital appointment, may do so on payment of the following Fees

	£	s.	d.
For 6 months	9 0 0
For 4 "	6 0 0
For 3 "	4 10 0
For 2 " and shorter periods..	3 0 0

VII. Fees for Examinations

	For first examination.			For subsequent examination.		
	£	s.	d.	£	s.	d.
Matriculation	2	0	0	1	10	0*
Registration of an External Matriculation Certificate	2	0	0	—		
First M.B.	6	0	0	6	0	0
Second M.B.	6	0	0	6	0	0
Final M.B.	6	0	0	6	0	0
Degree of Ch.M.	10	0	0	10	0	0
„ on conferment	5	0	0	—		
Degree of M.D.—						
On application	10	0	0	10	0	0
On conferment	5	0	0	—		
Diploma in Public Health—						
Part I	6	6	0	6	6	0
Part II	6	6	0	6	6	0
Diploma in Psychological Medicine	6	6	0	3	3	0
				(for each part)		
Diploma in Nursing	5	5	0	2	12	6
				(for each part)		

*A student who fails in the July examination in any year will be admitted to the September examination of the same year only on the payment of this fee.

Fees in connection with Matriculation are payable to the Secretary, Joint Matriculation Board, 315, Oxford Road, Manchester.

†In cases of re-examination in *one subject* only, half the fee for first examination will be charged.

The latest dates for payment of examination fees are:—

First M.B.—

In March on February 1st, 1932.

In June on March 1st, 1932.

In September on August 1st, 1932.

Second M.B.—

In March on February 1st, 1932.

In September on August 1st, 1932.

M.D., Final M.B., Diplomas in Public Health, Psychological Medicine and Nursing—

In March on February 1st, 1932.

In September on August 1st, 1932.

VIII. Convocation and Parliamentary Registration

Every person admitted to a degree (other than an Honorary Degree) of this University on or after June 1st, 1926, shall, unless already a member of Convocation, be

required to pay, prior to graduation, a fee of £1 which shall entitle the graduate to be registered as a member of Convocation and to have his or her name inscribed on the Parliamentary Register on attaining qualifying age.

Approximate Total Cost of Medical Course

	£	s.	d.
Matriculation Examination and Registration Fee .	4	0	0
Composition Fee (paid by instalments) ..	260	0	0
Maternity Hostel Fee	39	0	0
Examination Fees	18	0	0
Books, Instruments, etc.	48	0	0
Convocation Fee	1	0	0
	<hr/>		
	£370	0	0

SCHOOL OF DENTISTRY

COURSES OF STUDY

pursued by the Student of Dentistry

The Student of Dentistry can take either the Degree (B.Ch.D.) or the Diploma (L.D.S.) in Dental Surgery. He is advised to take the former, although requiring one more year of study. If he has the time at his disposal, he is strongly recommended to obtain a medical qualification as well, with a view to subsequently proceeding to the Mastership in Dental Surgery.

The normal courses for the Degree and the Diploma are set forth in the prospectus, and it will be observed that included in the courses is the necessary Pre-Registration instruction in Physics and Inorganic Chemistry. In the case of a student who, before entering the University, had already satisfied the University requirements for Pre-Registration, the courses of study would be reduced to five years and four years respectively, and there would be a slight saving of fees.

Before admission to the University, the student must have passed a preliminary examination in general education, which, in the case of the candidate for the Degree, must be the Matriculation Examination of the Joint Matriculation Board (of which Mathematics must have been a subject) or an exempting examination. For the Diploma he must have passed an examination, the standard of which must not be lower than that of a University Matriculation examination in the Faculties of Arts and Pure Science (with Mathematics as a subject) approved for the purpose by the General Medical Council.

After passing the preliminary examination in general education the student should enter his name for admission to the University with a view to commencing, in October, instruction in the subjects of the Pre-Registration examination, Physics and Inorganic Chemistry (if not previously taken at some other institution recognised by the University).

Immediately on passing the Pre-Registration examination, the student should register as a Medical or Dental Student at the offices of the General Medical Council. Forms for this purpose may be obtained from the Clerk to the Senate of the University.

The medical and surgical practice required by the regulations is carried out in the General Infirmary. Dental students can profit by following more particularly the practice of the special departments of the hospital, viz.: Ear, Nose and Throat.

Every student should make himself familiar with the examination regulations and should take care that he attends all the necessary courses of lectures, demonstrations and hospital practice in order to obtain the requisite certificates of attendance for entry to the examinations.

Students taking the examinations of other Licensing bodies must make themselves acquainted with the subjects, period of attendance, etc. necessary for such examinations, as they do not, in all cases, coincide with the University curricula.

DEGREES, COURSES OF STUDY, AND EXAMINATIONS IN DENTAL SURGERY

1. The Degrees in Dental Surgery shall be :

Ordinance

Bachelor of Dental Surgery (B.Ch.D.).

Master of Dental Surgery (M.Ch.D.).

Degrée of Bachelor of Dental Surgery

2. All candidates for the degree of Bachelor of Dental Surgery are required to present certificates showing that they will have attained the age of twenty-one years on the day of graduation, and that they have attended courses of instruction approved by the University extending over not less than five years, two of such years at least having been passed in the University subsequently to the date of passing Parts I and II of the First examination, and to have completed such period of pupilage or hospital attendance, or both, as may be prescribed by the Regulations of the University.

3. Candidates for the degree of Bachelor of Dental Surgery are required to satisfy the Examiners in the several subjects of the following examinations, entitled respectively :

The Matriculation examination, or such other examination as may have been recognised by the Joint Matriculation Board* of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham in its stead.

The First examination.

The Second examination.

The Final examination.

4. Each examination shall include practical work in the subjects offered.

5. All candidates shall be required, before presenting themselves for examination, to furnish certificates testifying that they have attended the prescribed courses of instruction in accordance with the Regulations of the University in each of the subjects which they offer, and that they have fulfilled the other requirements of the Ordinance and Regulations in respect of such examination.

*Joint Matriculation Board, 315, Oxford Road, Manchester.

Regulation Candidates for a degree in the Faculty of Medicine (M.B., Ch.B., or B.Ch.D.), except in cases specially approved by the Senate, are required to have passed in Mathematics as a subject of the Matriculation examination. The conditions of the Matriculation examination and of exemption therefrom are set forth in the Matriculation Syllabus which is issued free, and is obtainable from the Secretary, Joint Matriculation Board, 315, Oxford Road, Manchester.

First Examination

Ordinance 6. The first examination shall consist of four Parts :—

- PART I (Pre-registration)—
 Physics.
 Inorganic Chemistry.
 PART II) Zoology.
 Botany.
 PART III, Organic Chemistry.
 PART IV, Dental Mechanics.
 Dental Metallurgy.

7. Candidates shall be allowed to pass in each Part separately.

8. Candidates shall be required, before presenting themselves for Parts I, II and III of this examination, to have passed the Matriculation examination, and to have attended courses of instruction in accordance with the Regulations of the University.

9. Candidates shall be required, before presenting themselves for Part IV of this examination, to have completed two years from Matriculation, and to have attended courses of instruction in accordance with the Regulations of the University.

Regulations Candidates for the First Examination are required to furnish certificates of having attended approved courses of instruction at the University or at an institution recognised for this purpose by the University; or of having attended, at some other Institution, courses of instruction which shall be accepted by the University as equivalent.

The courses of instruction for students who have passed in Physics and Chemistry in the Matriculation examination shall be as follows:—

1. Inorganic Chemistry: lectures and laboratory work: at least six months.
2. Physics: lectures and laboratory work: at least six months.
3. Zoology: lectures and laboratory work: at least one year.
4. Botany: lectures and laboratory work: at least one term.

The examination will include laboratory work in the four subjects.

The examination (Part I) in Physics and Inorganic Chemistry will normally be held in March and the examination (Part II) in Zoology and Botany in June.

Students who have not passed in Chemistry and Physics in the Matriculation examination will be required to devote the whole of the first year to the Introductory courses in Physics, Chemistry, Zoology and Botany as prescribed for the B.Sc. degree, the course in each subject continuing throughout the session. They will take the First examination (Parts I and II) in June on completion of the first year's course. The examination will include laboratory work in the four subjects. Candidates may pass in each Part separately.

Candidates who have failed at the examination in March or June may be granted permission by the Senate to present themselves for a supplementary examination in September, and, if such permission be granted, may be excused such part of the supplementary examination as the Combined Examination Committee, on report from the Examination Committee concerned, may determine.

Concessions to Higher School Certificate holders.

Students who attain a satisfactory standard in Chemistry, Physics and Biology in the Higher School Certificate Examination and who propose to study for an Honours Science degree in Zoology, Anatomy, Physiology or Bacteriology in addition to the dental

degree may be exempted by the Board of Medicine from the courses in Inorganic Chemistry, Physics, Botany and Zoology of the first dental year.

This concession is only operative provided the student completes the three years' course of pre-clinical study.

Application for such exemptions should be made by the student to the Head of the Department in which he is presenting himself for Honours.

Admission to the First Examination (Part I) from School:

Students who have taken Chemistry and Physics in matriculation and who have studied Zoology at school may present themselves for Part I of the First Examination in March without attendance at the University, provided that they take at the same time a special examination in Zoology arranged by the University. Candidates who satisfy the examiners in all three subjects will take during the ensuing summer term the ordinary course in Botany and the third term course in Zoology for dental students, and may present themselves for Part II of the First Examination in June.

Candidates for the First examination, Part III, are required to have attended a complete course of instruction, approved by the University, in Organic Chemistry (two terms).

Candidates for Part IV of the First examination are required to have spent two years in the Department of Dental Mechanics of a recognised Dental or General Hospital, and to have attended, during at least one year, courses approved by the University, in the subjects of the examination, namely: Dental Mechanics: lectures and laboratory work. Dental Metallurgy: lectures and laboratory work.

The First examination shall be held twice in each calendar year.

Second Examination

- Ordinance 10. The subjects of the Second examination shall be:
- Part I Anatomy.
Physiology.
 - Part II Dental Anatomy and Physiology.
 - Part III Dental Materia Medica and Therapeutics.
Pharmacology.

11. Candidates may pass in each Part separately.

12. Candidates shall be required, before presenting themselves for the Second examination, to have passed the First examination, and to have attended courses of instruction in accordance with the Regulations of the University.

Candidates for the Second examination are required to have attended complete courses of instruction approved by the University in Pharmacology, six terms; in Anatomy and Physiology, five terms; in Dental Anatomy and Physiology, two terms; in Dental Microscopy, one term; in Practical Histology, one term; and in Dental Materia Medica and Therapeutics, one term. The Certificates must show (1) that dissection has been practised during five terms* at least, (2) that laboratory instruction, approved by the University, has been received in Physiology. Regulation

The Second examination shall be held twice in each calendar year.

Candidates who fail to satisfy the Examiners in any subject of the examination must, before being re-admitted to examination, produce evidence of having pursued such further study as may have been required by the Examiners.

Final Examination

13. The subjects of the Final examination shall be : Ordinance
Medicine.

Surgery.

Dental Surgery (including Clinical Dental Surgery, Orthodontia, Dental Radiology and Dental Prosthesis).

Pathology and Bacteriology (including Dental Pathology and Bacteriology).

14. Candidates shall be required, before presenting themselves for the Final examination, to have passed the First examination not less than two years previously, to have passed the Second examination not less than six

* Work in vacations, if sufficient in amount, is counted as one term.

months previously, and to have attended courses of instruction in accordance with the Regulations of the University.

15. The names of candidates who have satisfied the Examiners in all the subjects of the Final examination, and are recommended for degrees, shall be published as follows :—

1. Those awarded First Class Honours.
2. Those awarded Second Class Honours.
3. Those who have satisfied the Examiners.

The names shall be in alphabetical order in each case.

Regulation Candidates for the Final examination shall be required to have attended courses of study, approved by the University, as follows :—Surgery lectures, three terms ; Special Surgery of the Mouth, six lectures ; Medicine lectures, four terms ; General Pathology and Bacteriology, two terms ; Dental Pathology and Bacteriology, one term ; Dental Surgery and Pathology lectures, two terms ; Operative Dental Surgery lectures, one term ; Demonstrations on Anæsthetics, two terms ; Dental Clinical lectures, two years ; Dental Radiology, one term ; Orthodontia lectures, one term.

Candidates shall be required to present certificates of two years Medical and Surgical practice and three years Dental practice at hospitals recognised by the University. These certificates must show that practical instruction has been received in Medicine, Surgery, and the administration of Anæsthetics. Every candidate shall be required to have acted as clerk in the medical wards and as dresser in the surgical wards of a hospital recognised by the University.

The Final examination shall be held twice in each calendar year.

Candidates who fail to satisfy the Examiners in any subject of the examination must, before being re-admitted to examination, produce evidence of having pursued such further study as may have been required by the Examiners.

Degree of Master of Dental Surgery

1. No candidate shall be admitted to the degree of ^{Ordinance} Master of Dental Surgery unless he has received the degree of Bachelor of Dental Surgery at least one year previously, and has also obtained a registrable qualification in Medicine and Surgery.

2. The subjects of examination are:

- (1) Surgery of the head and neck in relation to dental diseases and abnormalities.
- (2) Dental bacteriology and pathology, including theories of immunity and vaccine-therapy.
- (3) Diseases of the alimentary canal.
- (4) Dental surgery, including orthodontics.
- (5) Dental radiology.

The examination shall be by written papers and practical and *viva voce* examination.

3. Before presenting himself for examination every candidate must furnish certificates of attendance for six months on the clinical practice of a recognised general hospital in which opportunities for study of Subjects 1 and 3 have been given, of attendance on a course of bacteriology, qualifying for the Diploma in Public Health, and of six months' attendance on the practice of a recognised dental hospital or of having held an office of demonstrator or house surgeon in such a hospital.

DIPLOMA IN DENTAL SURGERY (L.D.S.)**REGULATIONS**

Candidates for the Diploma in Dental Surgery (L.D.S.) of the University of Leeds are required to present certificates showing that they have attained the age of twenty-one years, and that they have attended courses of instruction, approved by the University, extending over not less than four years, two of which must have been spent in the University after passing the First examination, Parts I and II.

Candidates are required to satisfy the Examiners in the several subjects of the following examinations :—

1. A Preliminary examination in Arts.
2. First examination.
3. Second examination.
4. Final examination.

Preliminary Examination in Arts

The requirements of the Preliminary examination in Arts shall be fulfilled by passing an examination recognised for this purpose by the General Medical Council.*

First Examination

The first examination shall consist of four parts :—

- PART I—(Pre-Registration) : Physics.
Inorganic Chemistry
- PART II—Zoology.
Botany.
- PART III—Organic Chemistry.

* The conditions prescribed by the Council are :

- (a) The standard of the examination shall not be lower than that of a University Matriculation examination in the Faculties of Arts and Pure Science
- (b) The certificate shall bear evidence that the candidate has passed in the following subjects : English ; Elementary Mathematics ; a Language other than English ; an Additional Subject or subjects, as required by the regulations of the particular examination, to be chosen from History, Geography, Physical Science, Natural Science, Latin, Greek, Hebrew, French, German, or other recognised language.

Further particulars may be obtained on application to THE REGISTRAR, GENERAL MEDICAL COUNCIL, 44, HALLAM STREET, PORTLAND PLACE, LONDON, W.

PART IV—Dental Mechanics.

Dental Metallurgy.

Candidates may pass in each Part separately.

Candidates, before presenting themselves for the First examination, are required to furnish certificates of having attended courses of instruction in accordance with the Regulations of the University, and to have passed the Preliminary examination in Arts.

The names of candidates who have satisfied the Examiners in any part of the First examination shall be published in alphabetical order.

Candidates for the First examination are required to furnish certificates of having attended approved courses of instruction at the University or at an institution recognised for this purpose, by the University ; or of having attended, at some other institution, courses of instruction which shall be accepted by the University as equivalent.

The courses of instruction for the First examination, Parts I and II, shall be as follows :—

1. Inorganic Chemistry : lectures and laboratory work : at least six months.
2. Physics : lectures and laboratory work : at least six months.
3. Zoology : lectures and laboratory work : at least one year.
4. Botany : lectures and laboratory work : at least one term.

The examination will include laboratory work in the four subjects.

Students who have passed in Chemistry and Physics in the Matriculation (or exempting) examination will take the normal course.

Students who have not passed in Chemistry and Physics in the Matriculation examination will be required to devote the whole of the first year to the Introductory courses in Physics, Chemistry, Zoology and Botany as prescribed for the B.Sc. degree, the course in each

subject continuing throughout the session. They will take the First examination (both Parts) in June on completion of the first year's course. The examination will include laboratory work in the four subjects.

Concessions to Higher School Certificate holders.

Students who have passed in Chemistry and Physics in the Higher School Certificate examination* are exempted from the courses and examinations in Inorganic Chemistry and Physics and will take other approved courses.

Admission to the First Examination (Part I) from School.

Students who have taken Chemistry and Physics in matriculation and who have studied Zoology at school may present themselves for Part I of the First Examination in March without attendance at the University, provided that they take at the same time a special examination in Zoology arranged by the University. Candidates who satisfy the examiners in all three subjects will take during the ensuing summer term the ordinary course in Botany and the third term course in Zoology for dental students, and may present themselves for Part II of the First Examination in June.

Candidates for the First examination, Part III, are required to have attended a complete course of instruction, approved by the University, in Organic Chemistry (two terms).

Candidates for Part IV of the First examination shall be required to have spent two years in the Department of Dental Mechanics of a recognised Dental or General Hospital, or one year in such Department in the event of their having completed not less than two years in pupilage to a registered dentist, and to have attended, during at least one year, courses approved by the University, in the subjects of the examination, namely: Dental Mechanics: lectures and laboratory work; Dental Metallurgy: lectures and laboratory work.

The First examination shall be held twice in each calendar year.

*These must be taken as *Principal* subjects

Second Examination

The Second examination shall consist of two Parts :—

PART I—Anatomy.

Physiology.

PART II—Dental Anatomy and Physiology.

• Dental Materia Medica and Therapeutics.

Candidates may pass in each Part separately.

Candidates, before presenting themselves for the Second examination, are required to have passed the First examination, and to have attended courses of instruction recognised by the University, as follows : Pharmacology, one term ; Anatomy lectures, three terms ; Practical Anatomy, three terms ; Physiology lectures, three terms ; Practical Physiology, two terms ; Dental Anatomy and Physiology lectures, two terms ; Practical Dental Histology, one term ; Dental Materia Medica and Therapeutics, one term.

Candidates who fail to satisfy the Examiners in any subject of the examination must, before being re-admitted to examination, produce evidence of having pursued such further study as may have been required by the Examiners.

Final Examination

The Final examination shall consist of :—

Medicine and Surgery.

Dental Surgery (including Clinical Dental Surgery, Orthodontia, Dental Radiology and Dental Prosthesis).

Pathology and Bacteriology (including Dental Pathology and Bacteriology).

Candidates must pass the Second examination before being examined in the Final examination.

Candidates, before presenting themselves for the Final examination, must produce evidence of having (1) completed four years from the beginning of their pupilage ; (2) completed two years Medical and Surgical practice at hospitals recognised by the University ; (3) completed two years' Dental Hospital practice ; (4) attended courses of instruction recognised by the University,

as follows : Medicine, two terms ; Dental Surgery and Pathology lectures, two terms ; Operative Dental Surgery lectures, one term ; six special Anæsthetic demonstrations ; Special Surgery of the Mouth, six lectures ; Surgery lectures, two terms ; General Pathology and Bacteriology, two terms ; Dental Pathology and Bacteriology, one term ; Dental Clinical lectures, two years ; Dental Radiology, one term ; Orthodontics lectures, one term. The Certificates of Medical and Surgical practice must show that practical instruction has been received in Medicine and Surgery, and in the administration of Anæsthetics.

Candidates who fail to satisfy the Examiners in any subject of the examination must, before being re-admitted to examination, produce evidence of having pursued such further study as may have been required by the Examiners.

I. Degree of Bachelor of Dental Surgery
NORMAL COURSE.

FIRST TERM.	SECOND TERM.	THIRD TERM.
<p><i>First Year.</i> Physics. Inorganic Chemistry. Zoology. Introductory Dental Mechanics.</p>	<p>Physics. Inorganic Chemistry. Zoology. Introductory Dental Mechanics.</p> <p><i>First Examination :</i> <i>Part I. :—</i> Physics and Inorganic Chemistry. (March and September).</p>	<p>Zoology. Botany. Dental Laboratory.</p> <p><i>First Examination :</i> <i>Part II. :—</i> Zoology and Botany. (June and September).</p>
<p><i>Second Year.</i> Organic Chemistry. Dental Laboratory.</p>	<p>Organic Chemistry. Dental Laboratory.</p> <p><i>First Examination :</i> <i>Part III. :—</i> Organic Chemistry. (March and September).</p>	<p>Introductory Anatomy. Introductory Physiology Dental Laboratory.</p>
<p><i>Third Year.</i> Anatomy. Physiology. Dental Mechanics Lectures. Dental Metallurgy Lectures. Dental Laboratory.</p>	<p>Anatomy. Physiology. Dental Mechanics Lectures. Dental Metallurgy Practical. Dental Laboratory.</p> <p><i>First Examination :</i> <i>Part IV. :—</i> Dental Mechanics and Dental Metallurgy. (March and September).</p>	<p>Anatomy. Physiology. Dental Materia Medica (in July). Dental Hospital Practice.</p>
<p><i>Fourth Year.</i> Anatomy. Physiology. Pharmacology. Dental Surgery Lectures. Dental Anatomy and Physiology. Dental Hospital Practice</p>	<p>Anatomy. Physiology. Pharmacology. Dental Surgery Lectures Dental Anatomy and Physiology. Dental Histology. Dental Hospital Practice</p> <p><i>Second Examination :</i> <i>Part I. •</i> Anatomy and Physiology. <i>Part II. :—</i> Dental Anatomy and Physiology. (March and September)</p>	<p>Introductory Medicine. Surgery. Pharmacology. Operative Dental Surgery. Orthodontia Lectures. Dental Radiology. Dental Hospital Practice. Anæsthetic Dems.</p>

N.B.—Attendance at Dental Laboratory and Dental Hospital is required during vacations.

FIRST TERM.

Fifth Year.
Pharmacology.
Medicine.
General Pathology and
Bacteriology.
Dental Hospital Practice
Infirmary Practice.

Sixth Year.
Medicine.
Dental Hospital Practice.
Infirmary Practice.

SECOND TERM.

Pharmacology.
Medicine.
Surgery.
General Pathology and
Bacteriology.
Dental Hospital Practice
Infirmary Practice.

Second Examination:
Part III:—
Dental Materia Medica
and Therapeutics.
Pharmacology.

Medicine.
Surgery, including Special
Surgery of the Mouth.
Dental Hospital Practice.
Infirmary Practice.

Final Examination:
Medicine.
Surgery.
Dental Surgery (in-
cluding Clinical
Dental Surgery,
Orthodontia, Dental
Radiology and
Dental Prosthesis).
Pathology and
Bacteriology (in-
cluding Dental
Pathology and
Bacteriology).
(March and September).

THIRD TERM.

Surgery.
Dental Pathology and
Bacteriology.
Dental Hospital Practice.
Infirmary Practice.

II. Diploma in Dental Surgery

NORMAL COURSE

First Year.
Physics.
Inorganic Chemistry.
Zoology.
Introductory Dental
Mechanics.

Second Year.
Organic Chemistry.
Dental Laboratory.

Physics.
Inorganic Chemistry.
Zoology.
Introductory Dental
Mechanics.

First Examination:
Part I:—
Physics and Inorganic
Chemistry.
(March and September)

Organic Chemistry.
Dental Laboratory.

First Examination
Part III:—
Organic Chemistry.
(March and September)

Zoology.
Botany.
Dental Laboratory.

First Examination:
Part II:—
Zoology and Botany.
(June and September).

Introductory Anatomy.
Introductory Physiology.
Dental Laboratory.

N.B.—Attendance at Dental Laboratory and Dental Hospital is required during vacations.

FIRST TERM.	SECOND TERM.	THIRD TERM.
<p><i>Third Year.</i> Anatomy. Physiology. Dental Mechanics Lectures. Dental Metallurgy Lectures. Dental Laboratory</p>	<p>Anatomy. Physiology. Dental Mechanics Lectures. Dental Metallurgy (Practical). Dental Laboratory.</p> <p><i>First Examination :</i> <i>Part IV :—</i> Dental Mechanics and Dental Metallurgy. (March and September)</p>	<p>Anatomy. Physiology. Dental Materia Medica (in July). Dental Hospital Practice.</p> <p><i>Second Examination :</i> <i>Part I. :—</i> Anatomy and Physiology. (September and March).</p>
<p><i>Fourth Year.</i> Dental Anatomy and Physiology. Dental Surgery Lectures General Pathology and Bacteriology. Dental Hospital Practice.</p>	<p>Dental Anatomy and Physiology. Dental Histology. Dental Surgery Lectures General Pathology and Bacteriology Medicine. Surgery. Dental Hospital Practice. Infirmary Practice.</p> <p><i>Second Examination :</i> <i>Part II. :—</i> Dental Anatomy and Physiology. Dental Materia Medica and Therapeutics. (March and September).</p>	<p>Medicine, Introductory. Surgery. Operative Dental Surgery. Dental Pathology and Bacteriology. Orthodontia Lectures. Dental Radiology. Anæsthetic Demonstra- tions. Dental Hospital Practice. Infirmary Practice.</p>
<p><i>Fifth Year</i> Medicine. Dental Hospital Practice. Infirmary Practice.</p>	<p>Medicine. Surgery, including Special Surgery of the Mouth. Dental Hospital Practice. Infirmary Practice.</p> <p><i>Final Examination :</i> Medicine and Surgery Dental Surgery (in- cluding Clinical Dental Surgery, Orthodontia, Dental Radiology and Dental Prosthesis). Pathology and Bacteriology (in- cluding Dental Pathology and Bacteriology). (March and September).</p>	

N.B.—Infirmary Practice also takes place from July to September. Attendance at Dental Laboratory and Dental Hospital is required during vacations.

SCHOOL OF MEDICINE

Dental students attend at the School of Medicine for instruction in the subjects of the Second and Final examinations and they are required to conform to the regulations of the School.

The School of Medicine is separated from the Infirmary and the Dental School by the width of a street only, a proximity which facilitates attendance at all three institutions. The wealth of clinical material in the Infirmary and other Medical Institutions in Leeds and the West Riding, together with the Laboratories, &c., in this School, offers to students opportunities of great value.

Students are educated for the degrees of Leeds and other Universities, and for the diplomas of all Medical Licensing Bodies in the United Kingdom. Women are admitted on the same terms as men.

The present buildings were opened in 1894. They contain one of the finest Dissecting Rooms in the kingdom; laboratories for Physiology, Pathology, and Bacteriology, with the most recent improvements in fittings and apparatus; three Lecture Theatres and several smaller Class Rooms; a Library and Reading Room; a Pathological Museum, and a separate Museum for Anatomy.

The convenience and comfort of students are also provided for by commodious Common Rooms, separate lockers for coats, &c., and a Refectory. A separate Common Room is provided for women students.

The Library

Contains a valuable collection of books, composed of the united libraries of the School of Medicine and of the Leeds and West Riding Medico-Chirurgical Society. The Library of the Old Infirmary, rich in Medical Classics, became the property of the Medical School in 1865.

The collection includes most of the modern works of importance, and the chief English and foreign periodicals are taken.

Recommendations for the purchase of new works should be entered in a book provided for the purpose, or be addressed to the Hon. Librarian.

Library Rules

1. The Library is open to Students daily, between the hours of 9 a.m. and 5 p.m., except on Saturdays, when it is closed at 1 p.m. During these hours, books can be obtained for use in the Library.

• 2. Students wishing to borrow books for home use are allowed to do so under the following regulations :—

(a) Every student wishing to take books away from the Library shall deposit half-a-guinea as caution money ; this sum, or the balance of it remaining shall be refunded to the depositor on the return of his library card.

(b) The student will, on payment of the deposit, receive a Library card with his name upon it. This card must always be presented whenever the student desires to borrow a book.

(c) Books borrowed for home use must be returned to the Library within two weeks from the date of issue, or earlier if in urgent demand. One volume only can be borrowed at a time. A fine of 2d. a day is incurred for every day that it has been detained beyond the time allowed.

(d) No periodical for the current year may be removed from the library.

(e) In case of loss of or damage to any book, the loss or damage must be made good by the borrower.

(f) Every book must be returned to the Library at the end of the Summer Term.

Museums

The MUSEUM OF PATHOLOGY contains, in addition to preparations illustrating the ordinary pathological processes, many rare specimens, some of historical interest. It draws largely for its supply from the abundant material of the General Infirmary, as well as from other institutions in the City. A collection of Microscope sections from specimens in the Museum is available for the use of students on application.

A complete type collection of MATERIA MEDICA specimens is also placed here for the convenience of students.

THE MUSEUM OF ANATOMY AND BONE ROOM adjoins the Dissecting Room, and has been fitted up under the direction of the first Professor of Anatomy, (Dr. T. Wardrop Griffith) with a valuable collection of specimens specially arranged

for study, which are also used in illustration of the Lectures on Anatomy. Amongst them are a complete set of bones marked with the muscular attachments, and mounted in revolving cases; and an extensive series of wax models, illustrating the development of the foetus.

Refectory

A well-appointed Refectory, which is open daily, excepting Saturdays, has been provided in the building. It is under the combined management of the Board of the Faculty and of the Students' Representative Council. Luncheon is served from 12 to 2 p.m. Tea, coffee, and light refreshments may be obtained until 5 p.m.

Leeds University Union

Includes membership of debating societies, admission to athletics and gymnasium, and use of Common Rooms. At the gymnasium a permanent instructor is engaged.

A subscription of £2 per annum is charged to students who commenced their courses in the University prior to Session 1930-31, and £3 to students who commenced their courses in Session 1930-31 and after. This subscription is included in the Dental Composition Fee.

Officers' Training Corps

This organisation was inaugurated in July, 1909.

The object is to train students for Commissions in the Special Reserve and the Territorial Force. Students should give their support to this national object.

REGULATIONS FOR STUDENTS IN THE SCHOOL OF MEDICINE

1. All students are required to enrol their names at the Dean's office at the beginning of the first term. Students who from any unavoidable cause are prevented from personally attending at that time must communicate with the Academic Sub-Dean by letter.

2. Should a student change his residence during the Session, he must inform the Academic Sub-Dean of the change of his address without delay.

3. Regular, punctual, and orderly attendance at Lectures, Demonstrations, and Class-examinations is required of every student, in order to obtain certificates of attendance. In the case of persistent neglect of work, repeated failure at professional Examinations, or unreasonable delay in presenting himself for such Examinations, a student may be required to withdraw from the University.

4. In cases of illness or other unavoidable cause of non-attendance at any Lecture, Demonstration, or Class Examination, a written explanation, accompanied, when necessary, by a medical certificate, must be sent to the Lecturer, with as little delay as possible, otherwise excuses for absence cannot be accepted. Hospital work is not counted as an excuse for non-attendance upon lectures.

5. Prizes will be granted only when the work and conduct of the student are satisfactory, and certificates or prizes may be refused on the ground of unsatisfactory conduct.

6. Smoking is allowed only in the Students' Common Room, and after 1 p.m. in the Refectory.

7. Students will be required to make good, to the satisfaction of the Council, any loss, wilful damage or injury they may occasion to the property of the University.

8. Students in the School of Medicine are amenable to the discipline and general regulations of the University, as well as to the rules made by the Board of the Faculty of Medicine. Violation of these regulations and rules renders a student liable to immediate dismissal and to the forfeiture of all fees, certificates and privileges as a student of the University.

9. Prior to entering the School every student is required to sign the following declaration :

If admitted a Student in the Faculty of Medicine of the University of Leeds, I hereby undertake to comply with all rules and regulations of the University, and to conduct myself on all occasions in an orderly manner. I fully understand that no allowance whatever will be made, and that I have no claim upon the Council of the University in respect of any fees paid by or due from me, in case such fees are forfeited by any irregularity or misconduct on my part.

LECTURES AND CLASSES

HELD IN THE UNIVERSITY ROAD
BUILDINGS OF THE UNIVERSITY

Physics

Pre-Registration Course

It is very desirable that students taking this course should have an elementary knowledge of Algebra, Trigonometry and Mechanics. There is a special course of lectures in Experimental Mechanics for such students as may wish to attend.

The following subjects will be treated in an elementary manner, illustrated by experiments: Electricity, Magnetism, Sound, Light, Heat and Properties of Matter.

Suitable text books will be recommended by the lecturer.

The course, which extends over the first and second terms, consists of lectures on Monday, Wednesday and Friday, 10 to 11 a.m., and on Tuesday, 2 to 3 p.m., and of laboratory work on Wednesday, 11 a.m. to 1 p.m., and on Saturday, 10 a.m. to 12 noon.

Chemistry

I. Pre-Registration Course

This course will consist of Lectures on Monday, Thursday and Friday, at 2 p.m., during the first and second terms.

In connection with this course, a tutorial class will be held one hour weekly.

II. Practical Inorganic Chemistry

During the first and second terms, on Monday, 3 to 5 p.m.; Thursday, 3 to 5 p.m.; and Friday, 3 to 5 p.m.

N.B.—For students who wish to take additional practical work of whatever kind, the Chemical Laboratory is open daily from October to June inclusive.

III. Organic Chemistry

During the first and second terms on Thursday, 2 to 5 p.m., Friday, 12 noon to 1 p.m. and 2 to 5 p.m.,

and Saturday, 9 a.m. to 1 p.m. The course will consist of lectures on Friday at 12 noon, and Saturday at 9 a.m., and practical work for the remainder of the allotted period.

Zoology

Botany

• Dental students take the full courses specified in the Calendar for First M.B. candidates.

Lectures on Zoology during the session on Monday and Friday at 11 a.m. Practical work in the Zoological laboratory throughout the session on Tuesday and Thursday mornings, 11 to 1.

Lectures and practical work on Botany during the third term only on Monday, 12 to 1 p.m.; Tuesday, 2 to 5 p.m.; Wednesday 10 a.m. to 1 p.m.; Thursday, 2 to 5 p.m.

Each student will be required to provide himself with a microscope (suitable also for his subsequent studies), a dissecting case, a biological drawing book, and some simple instruments for microscopic work.

Dental students can obtain the loan of microscopes for their courses in both Zoology and Botany at the rate of 15s. each per session. These fees must be paid in advance to the Accountant immediately after the student has arranged with the laboratory steward for the loan of a microscope.

Dental Metallurgy

Lectures on Friday at 12 noon, during the *first* term.

A laboratory class for practical work will be held on Mondays, 2 p.m. to 5 p.m. during the *second* term.

Physical and Chemical Properties of the metals : gold, platinum, palladium, silver, tin, antimony, mercury, lead, bismuth, zinc, cadmium, copper, aluminium, iron, nickel.

Alloys : Preparation, composition and properties.

Amalgams : Preparation and properties.

Solders : Composition and uses.

Description of blowpipes, furnaces, muffles, and their uses.

Fluxes: Purification of scrap and sweep.

Methods of testing metals and alloys. Assay of gold and silver.

Dental Cements and their preparation.

**HELD IN THE BUILDINGS OF THE SCHOOL
OF MEDICINE OF THE UNIVERSITY IN
THORESBY PLACE**

Anatomy

Systematic and Descriptive Anatomy

I. For B.Ch.D. Students

The Course extends over six terms.

- (a) The introductory course is held in the third term of the second year (osteology), on Mondays and Thursdays at 9.15 a.m.
- (b) The general course is held on Mondays, Wednesdays and Fridays, at 9.15 a.m. throughout the three terms of the third year and on Tuesdays, Thursdays and Saturdays, at 9.15 a.m. during the first and second terms of the fourth year. To promote the association of study of form and function the course deals first with the organs of abdomen and thorax, central nervous system and sense organs and human embryology. Special arrangements are made for students who cannot attend the introductory course in the first summer.

Systematic tutorial classes are held in connection with the above courses and attendance on these is obligatory.

II. For L.D.S. Students

The Introductory Course is held in the third term on Mondays and Thursdays at 9.15 a.m.

General course on Tuesdays, Wednesdays and Fridays at 2 p.m. throughout the session.

Systematic tutorial classes are held in each of the three terms and a series of demonstrations specially adapted to the requirements of Dental students is held.

Dissections are carried out on each afternoon during three terms.

Practical Anatomy

• The dissecting room is open during the session from 9 a.m. to 5 p.m. (Saturday to 12.30 p.m.) and in vacations except the month of August. Students are required to submit their work for examination and record in order to obtain certification that dissection has been satisfactory. Demonstrators are in daily attendance and tutorial classes are held.

The rooms are only open to students who have entered for courses or paid fees for the use of the room, and to students of the School who have passed the second professional and are reading for the Final examination.

Physiology

i. Elementary Course in Physiology (L.D.S.)

The elementary course in Physiology is specially devoted to the needs of Dental Diploma Students.

The Introductory Course is held in the third term on Tuesdays at 9.15 a.m.

General Lectures.

First, Second and Third terms : Monday, Wednesday and Friday, 9.15 a.m.

General Practicals

First and Second terms : Bio-chemistry, Tuesday, 10 a.m. ; Histology, Friday, 3 p.m.

Third term : Human Physiology, Wednesday, 10 a.m. ; Experimental, Thursday, 10 a.m. ,

II. General and Senior Course (B.Ch.D.)

The complete course occupies six terms.

- (a) **Introductory Lectures :—**
Third term, Second Year : Tuesday, 9.15 a.m.
- (b) **General Lectures :—**
First term, Third Year : Tuesday and Thursday, 9.15 a.m.
Second and Third terms : Tuesday and Thursday, 9.15 a.m., Wednesday, 12 noon.
- (c) **Senior Lectures :—**
First and Second terms, Fourth Year : Monday, Wednesday and Friday, 9.15 a.m.
- (d) **Introductory Practical Course :—**
Third term, Second Year : General Physiology.
- (e) **General Practical Course :—**
First term, Third Year : Histology, Wednesday, 10 a.m.
Second term, Third Year : Experimental, Monday and Tuesday, 10 a.m. or 2 p.m. ; Bio-Chemistry, Monday, 2 p.m. or Wednesday, 2 p.m. ; Histology, Wednesday, 10 a.m.
Third term : Experimental, Monday, 10 a.m. or 2 p.m. ; Human Physiology, Wednesday, 10 a.m. or 2 p.m. ; Histology, Friday, 2 p.m.
- (f) **Senior Practical Course :—**
First term, Fourth Year : Human Physiology, Monday and Tuesday, 10 a.m. or 2 p.m. ; Bio-chemistry, Monday and Tuesday, 10 a.m. or 2 p.m. ; Histology, Thursday, 10 a.m.
Second term : Bio-chemistry, Monday, 10 a.m. or Tuesday, 10 a.m. ; Human Physiology, Wednesday, 2 p.m. or Thursday, 10 a.m.

During the third term of the third year and the first and second terms of the fourth year students will be required to attend a tutorial class for one hour per week.

III. Revision Classes

Revision classes are held each term at times to be arranged.

IV. Applied Physiology

A course of lectures and practical work on Human Physiology and its application forms part of the general and senior courses in Physiology.

V. Advanced Physiology

A course of advanced lectures and practical work for students taking the Honours degree of B.Sc. is held throughout the year ; for details consult Calendar.

VI. Biochemistry

A course of advanced lectures will be given throughout the year ; 1 hour per week, at times to be arranged.

VII. Comparative Physiology

A course of lectures and practical work will be given at times to be arranged.

VIII. Pharmacology (B.Ch.D.)

A course of lectures and practical work, extending over six terms (including Introductory), covering one hour each week from 12 noon to 1 p.m., will be given during the fourth and fifth years.

Special demonstrations will be given at times to be arranged.

IX. Research in Physiology

Students or others desiring to pursue, or to assist in, original investigations in Physiology will be admitted to the laboratories throughout the year by arrangement with the Professor. They will be personally responsible that the apparatus they employ is not broken or misused.

Apparatus

Students are required to provide themselves with :—

- (a) A good microscope, with $\frac{2}{3}$ in. and $\frac{1}{8}$ in. objectives.
The Professor will be glad to assist students in

the choice of an instrument. Students will not be allowed to attend the class unless provided with a suitable instrument.

- (b) Accessories, Scissors, forceps, needles in handles, slides and cover glasses, etc.

No apparatus may be removed from the Laboratory without the permission of the Professor, and then only on furnishing a written receipt.

The workshop is private and not to be used without permission.

Pathology and Bacteriology

A course in General Pathology and Bacteriology is held on Monday and Thursday during the first term, and on Tuesday and Thursday during the second term from 2 to 3.30 p.m.

A course in Dental Pathology and Bacteriology is held in the Medical School on Mondays and in the Dental School on Tuesdays during the third term from 2 to 3.30 p.m.

Each student must be provided with a good microscope, having an oil immersion lens and a condenser.

Principles and Practice of Medicine

For B.Ch.D. Students

An Introductory Course, and four terms lectures.

For L.D.S. Students

An Introductory Course, and two terms lectures.

Introductory Lectures: Monday and Thursday at 9 a.m. during the summer term.

General Lectures: Tuesday and Thursday at 4 p.m. during the first term.

Clinical Lectures: Wednesday at 9 a.m. during the second term.

Tutorial classes are held twice a week for students in their first clinical year, concurrently with their Preliminary Medical Clerkships.

Systematic Surgery

Lectures on Tuesday and Friday from 9-10 a.m. during the second and third terms.

Wednesday, 12-1 : a series of tutorial classes in the surgery of the head and neck for students about to sit for the final examination.

Materia Medica and Therapeutics

In July at hours to be arranged.

The course includes the sources, preparation, physical characters, pharmacopœial combinations, tests, doses and general uses of the principal official drugs.

After each lecture a tutorial class is held in which the students are exercised in the actual recognition of the most important drugs.

HELD IN THE SCHOOL OF DENTISTRY

Dental Surgery

Tuesday during the first term, and Friday during the second term at 12 noon.

Condition of the jaws and teeth at birth.

Relation of the teeth to the bone and adjacent structures.

Temporary dentition : infantile disorders dependent thereon.

Permanent dentition.

Malocclusion : diagnosis and treatment.

Association of tissue defects with food deficiencies.

Abnormal teeth : syphilitic, hypoplastic, supernumerary, geminated, dilacerated, deflected, impacted.

Dental Caries : dietetic and other causative factors, prophylactic and remedial treatment.

Abrasion : etiology and treatment. Attrition. Erosion.

Pathological conditions of the tooth pulp : acute and chronic inflammation, ulceration, gangrene, polypus, degeneration, fibrosis, intrinsic calcification.

Injuries to the teeth : fracture, dislocation, treatment by replantation and implantation, transplantation.

Periodontitis, acute and chronic, rarefying and productive. Vincent's disease.

Alveolar abscess : etiology, pathology, and treatment.

Salivary calculus.

Neuralgia and odontalgia.

Lesions due to dental causes : nervous, muscular, trophic.

Injuries and diseases of the maxillæ : necrosis, pathology and treatment.

Fractures of the maxillæ : surgical and prosthetic treatment.

Diseases of temporo-maxillary articulation : operative and mechanical treatment.

Diseases of the antrum : cysts and empyema, mechanical appliances for drainage.

Cleft palate and oral deformities : treatment by obturators, and vela.

Diseases of the gums : acute and chronic inflammation, hypertrophy, polypus, papilloma, stomatitis.

Morbid growths : Innocent. Cystic. Malignant. Odontomes.

Operative Dental Surgery

Tuesday, at 12 noon, during the third term.

The surgery : its fittings and hygiene.

Instruments and surgical cleanliness.

Treatment of patients : time and pain-saving methods.

Uses of electric current in dental therapeutics including Ionic Medication.

Treatment of children, with special reference to prophylaxis, deciduous dentition, permanent dentition, and general principles underlying orthodontic treatment.

Case recording.

Scaling and oral hygiene.

Prophylaxis and treatment of dental caries.

Rubber dam and other means of controlling saliva.

Separating and separators.

Principles of cavity preparation.

Filling materials : characteristics and manipulation.

Special preparation of cavities for and filling with : gold and tin, cements, gutta percha, amalgam, and porcelain inlays, and the treatment of fillings with respect to contour.

Treatment of the dental pulp : its conservation, devitalization, and immediate removal.

Root fillings.

Treatment of septic roots and alveolar abscesses.

Extractions and the casualties liable to occur.

Fractures of the jaws and their treatment.

Crown and bridge work : surgical preparation of the mouth and teeth ; principles of construction from the surgical standpoint, methods of fixing.

Repair of crowns : various methods.

Anaesthesia : local and general, methods of production.

Cleft palate : treatment by means of obturators, vela, etc.

Orthodontics

Friday, at 12 noon, during the third term.

Occlusion : forces of occlusion.

Malocclusion : positions of malocclusion, or malpositions of the teeth ; classification of malocclusion or malrelation of the arches ; malformation of the jaws and their processes ; abnormal relation of the mandible to the maxillæ ; etiology of malocclusion.

Regulating Appliances: principles of regulating appliances; requirements; fixed and removable; technique for making regulating appliances; composition of appliances; Jackson's cribs.

Anchorage.

Retention of Teeth.

Impressions and Models.

Use of the X-Ray in Orthodontics.

Treatment of Cases.

Dental Anatomy and Physiology

Thursday at 12 noon during the first and second terms.

A class in Practical Dental Histology is held at 4 p.m. on Thursday in the second term.

Human Anatomy

Morphology of the teeth.

The dental tissues: Enamel, dentine, tooth pulp, cementum, Nasmyth's membrane.

Gum and periodontal membrane.

Development of the teeth.

Calcification of the dental tissues.

Development and growth of the maxillae and mandible.

Eruption and absorption.

The attachment of the teeth.

Comparative Anatomy

Classification and evolution.

The teeth of fishes.

Amphibia and Reptiles.

The homologies of the teeth. The milk dentition.

The evolution and characteristics of the mammalian dentition.

Prototheria and Metatheria (Marsupialia).

Insectivora, Chiroptera, and Carnivora.
Edentata, Rodentia, and Cetacea.
Ungulata with sub-orders Hyracoidea and Proboscidea.
Sirenia and Primates.

Dental Mechanics

• Thursday, at 4 p.m. during the first and second terms.

Examination of the mouth.
Preparation of the mouth.
Impression materials.
Technique of Impression taking.
Casting of Dies and Counter Dies.
Swaging of Gold and Aluminium.
Casting of Gold and Aluminium.
Soldering, Solders and their composition.
Making of Clasps.
Flasks and Flasking.
Vulcanite.
Porcelain and Porcelain Teeth.
Gum Sections.
Continuous Gum Work.
Synthetic Resins.
Bite Taking.
Methods of measuring movements of mandible.
Articulation and Articulators.
Mounting of Porcelain Teeth.
Retention of Complete Dentures.
Springs.
Crowns : Gold, Gold and Porcelain, and Porcelain.
Bridges : fixed and removable.
Fractures of the Jaws and Splints.
Mechanical treatment of Cleft Palates.

Dental Radiology

A course of lectures on Dental Radiology will be given during the first and third terms, at times to be arranged.

GENERAL HOSPITAL PRACTICE

Leeds General Infirmary.—The medical and surgical practice required by dental students is taken at this Institution, which offers abundant opportunities for clinical study. A full account of the arrangements for clinical teaching, and of the appointments offered to students, will be found in the Medical Prospectus. Dental students will be required to fulfil the following appointments:

1. Preliminary Medical and Junior
P.M. Clerkships 3 months
2. Preliminary Surgical Clerkship and
O.P. Dressership 3 "
3. Aural O.P. Dressership 3 "

The fee for General Hospital Practice is included in the Composition Fee. Enquiries relating to attendance at the Infirmary, should be addressed to the Clinical Sub-Dean, Mr. MORR, through the Dean's Office.

SCHOLARSHIPS

The Dental Board of the United Kingdom awards Bursaries to suitable students to enable them to pursue a course of study with a view to obtaining a registrable dental qualification. Particulars of these Bursaries and forms of application may be obtained from the Registrar, Dental Board of the United Kingdom, 44, Hallam Street, London, W.1.

Particulars of University Entrance Scholarships are contained in the Scholarships Prospectus, which may be obtained (price 3d.) from the Registrar of the University.

FEES

General Regulations

The composition fees for lecture and laboratory courses may be paid either sessionally, in advance, or (with certain exceptions) terminally by instalments. Fees paid by instalments are at a slightly higher rate than when paid in advance. The terminal instalment scales of fees are not applicable to students ordinarily resident outside the British Isles; such students must pay fees sessionally in advance.

A student ceasing, for any reason whatsoever, to attend at the University during the session has no claim to a return of fees.

A student who elects to pay composition fees by instalments and who withdraws from the University before the end of a session must pay the whole of the remaining instalments of the session's fee.

On presentation of a form signed by the Dean of the Faculty authorising attendance upon courses of study, and upon payment of the requisite fees, the Accountant will supply a class ticket entitling the student to attend such courses. This class ticket must be presented by the student, before commencing attendance, to the Professors or Lecturers whose classes or lectures he is authorised to attend.

Students are required to pay a Registration Fee of £2 when their application for admission to the University is accepted.

Fees may be paid either in the Secretary's Office, Dental School, or in the Students' Section, University Road. Cheques should be made payable to "The University of Leeds."

I. Composition Fees

The following scale of fees is applicable to students who commence their Dental course in Session 1930-31 or after.

For students who commenced their course prior to Session 1930-31, the fee, as here stated, will be reduced by £1 per session, i.e., total Degree Composition Fee £275; total Diploma Composition Fee £243.

For students who commenced their course prior to Session 1930-31, and who elect to pay fees under the instalment scale, the second term's instalments as here stated for the Degree and for the Diploma will be reduced by £1

Complete course (including Pre-Registration course, Pupilage, Dental and General Hospital practice and Union Fees):—

I. For the Degree of B.Ch.D.:—

			When paid in terminal instalments on the 1st day of each term.				
			1st term.	2nd term.	3rd term.		
		When paid sessionally in advance.					
		£	£	£	£		
1st Session	..	86	..	40	..	28	.. 20
2nd Session	..	61	..	30	..	20	.. 13
3rd Session	..	51	..	25	..	17	.. 11
4th Session	..	51	..	25	..	17	.. 11
5th Session	..	31	..	20	..	12	.. —
Total	..†	£280					

For the Diploma in Dental Surgery:—

1st Session	..	86	..	40	..	28	..	20
2nd Session	..	61	..	30	..	20	..	13
3rd Session	..	61	..	30	..	20	..	13
4th Session	..	39	..	20	..	20	..	—
Total	..†	£247						

II. Pupilage Fees

	£	s.	d.
For six months additional pupilage in dental mechanics	26	0	0
For three months additional pupilage	..	..	13 0 0

III. Dental Practice Fees

For six months additional	..	..	..	..	10	0	0
For three months additional	..	..	..	..	5	0	0

† Reduced by £15 if paid in one sum at commencement of first year.

‡ Reduced by £9 if paid in one sum at commencement of first year.

IV. Recapitulation Fees

L.D.S. students :

Anatomy (six months)	..	..	..	..	5	0	0
Physiology (six months)	..	..	..	..	5	0	0
Anatomy and Physiology (six months)	..	..	..	..	8	0	0
Dental Anatomy and Physiology (3 months)	..	..	..	..	3	0	0

V. Examination Fees, etc.

Matriculation	..	..	..	..	2	0	0
Registration of an External Matriculation Certificate					2	0	0
B.Ch.D. { First Examination	..	..	..	..	6	0	0
and { Second	..	..	..	..	5	0	0
L.D.S. { Final	..	..	..	..	5	0	0
Conferment of Diploma	..	..	..	..	6	0	0
„ „ Degree.	..	..	..	..	*7	0	0

The latest dates for the payment of examination fees are :—

First Exam. B.Ch.D. and L.D.S.

In March, on February 1st

In June, on March 1st.

In September, on August 1st.

Second and Final B.Ch.D. and L.D.S.

In March, on February 1st.

In September, on August 1st

The fees are the same for re-examination as for original examination.

VI. Locker Fee and Breakages Deposit

A deposit of £2 is payable on commencement of the Dental course. Half of this amount will be retained as locker rent, the balance being returnable at the end of the course less the cost of replacing keys, apparatus, etc., lost or broken by the student. If at any time during the course the total cost of replacements exceeds £1, a further deposit of £1 will be payable.

VII. Cost of Dental Education, shewing incidence of charges

On the following pages are set forth expenses of Dental Education shewing approximately how the various charges fall due if the fees are paid by instalments and examinations taken at the earliest possible date.

(It is assumed that the student will enter on the course in October).

* Including £1 Parliamentary Registration and Convocation Fee.

(a) Degree in Dentistry (B.Ch.D.)

The total cost will be reduced by £15 if those fees marked * are paid in one sum instead of by instalments.

(Before entry).		£	s.	d.	£	s.	d.
Matriculation Examination ..	..	2	0	0			
Registration Fee (on acceptance) ..	..	2	0	0			
					4	0	0
<i>First Year.</i>							
October.							
Composition Fee—First Instalment ..	*86	0	0				
Locker and breakages deposit ..	2	0	0				
Microscope and Books ..	27	0	0				
Laboratory Tools ..	7	0	0				
February.							
First Examination Fee ..	6	0	0		128	0	0
<i>Second Year.</i>							
October.							
Composition Fee—Second Instalment ..	*61	0	0				
Chemical Apparatus and Books ..	7	10	0				
April.							
Books ..	7	0	0				
Anatomy Charges ..	6	10	0		82	0	0
<i>Third Year.</i>							
October.							
Composition Fee—Third Instalment ..	*51	0	0				
April.							
Instruments ..	38	0	0				
Books ..	3	0	0		92	0	0
<i>Fourth Year.</i>							
October.							
Composition Fee—Fourth Instalment ..	*51	0	0				
February.							
Second Examination Fee ..	5	0	0		56	0	0
<i>Fifth Year.</i>							
October							
Composition Fee—Fifth Instalment							
<i>Sixth Year.</i>							
February.							
Final Examination Fee ..	5	0	0				
March.							
Graduation, Parliamentary Registration and Convocation ..	7	0	0		12		
Approximate Total Cost for students who commence a Course in Session 1930-31 or after ..							
					£405	0	0

(b) **Diploma in Dentistry (L.D.S.)**

The total cost will be reduced by £9 if the fees marked † are paid in one sum instead of by instalments.

(Before entry).	£	s.	d.	£	s.	d.
Matriculation or some other recognised						
Preliminary Examination, say	2	0	0			
Registration Fee (on acceptance) ..	2	0	0			
	<hr/>			4	0	0

First Year.

October.					
Composition Fee—First Instalment	†86	0	0		
Locker and breakages deposit	..	2	0	0	
Microscope and Books	..	27	0	0	
Laboratory Tools	..	7	0	0	
February.					
First Examination Fee	..	6	0	0	
					128 0 0

Second Year.

October.						
Composition Fee—Second Instalment	†61	0	0			
Chemical Apparatus and Books	..	7	10	0		
April.						
Books	..	6	10	0		
Anatomy Charges	..	2	0	0		
					77	0 0

Third Year.

October.						
Composition Fee—Third Instalment	†61	0	0			
April.						
Instruments	..	38	0	0		
Books	..	3	0	0		
February.						
Second Examination Fee	..	5	0	0		

Fourth Year.

October.						
Composition Fee—Fourth Instalment	†39	0	0			
					39	0 0

Fifth Year.

February.						
Final Examination Fee	..	5	0	0		
March.						
Conferment of Diploma	..	6	0	0		

Approximate Total Cost for students
who commence a Course in Session
1930-31 or after £366 0 0

TIME TABLES

(Subject to alterations).

NORMAL COURSES.

Lectures and Practical Classes.	M.	Tu.	W.	Th.	F.	S.
FIRST YEAR.						
1st TERM.						
<i>B.Ch.D. and L.D.S.</i>						
Physics—Lectures ..	10	2	10		10	..
" —Practical ..			11-1	..	..	10-12
Chemistry—Lectures ..	2	.		2	2	..
" —Tutorial ..	12	.				..
" —Laboratory ..	3-5			3-5	3-5	
Zoology—Lectures ..	11				11	.
" —Practical ..		11-1		11-1		.
Introductory Dental Mechanics ..		3-5		..		.
2nd TERM.						
Physics—Lectures ..	10	2	10		10	..
" —Practical ..			11-1			10-12
Chemistry—Lectures ..	2			2	2	..
" —Tutorial ..	12			..	..	..
" —Laboratory ..	3-5			3-5	3-5	.
Zoology—Lectures ..	11			..	11	.
" —Practical ..		11-1		11-1		.
Introductory Dental Mechanics ..		3-5				..
3rd TERM.						
Zoology—Lectures ..	11	.	.	..	11	
" —Practical ..		11-1		10-12		
Botany—Lectures ..	12	2	..	2	.	..
" —Practical ..	..	3-5	10-1	3-5	.	..
SECOND YEAR.						
1st TERM.						
Organic Chemistry—Lectures ..	..	.	..	..	12	9
Laboratory ..	..	..	..	2-5	2-5	10-1
2nd TERM.						
Organic Chemistry—Lectures ..	.		..	..	12	9
Laboratory ..	..	..	..	2-5	2-5	10-1
3rd TERM.						
Introductory Anatomy ..	9-1	.	.	9-15	..	..
" Physiology ..	..	9-15	..	.	..	..

TIME TABLES

(Subject to alterations)

NORMAL COURSES.

Lectures and Practical Classes	HOURS					
	M.	Tu	W	Th.	F.	S.
• THIRD YEAR						
1st TERM.						
<i>B.Ch.D.</i>						
Anatomy—Lectures ..	9.15	..	9.15	..	9.15	..
—Practical ..	2-4	2-4	2-4	2-4	2-4	..
Physiology—Lectures ..	..	9.15	..	9.15	..	..
—Practical ..	..	..	10-12	..	..	..
Dental Mechanics— Lectures ..	..	..	..	4	..	..
Dental Metallurgy— Lectures ..	..	..	..	..	12	..
<i>L.D.S.</i>						
Anatomy—Lectures ..	..	2	2	..	2	..
—Practical ..	2-4	3-4	3-4	2-4	..	..
Physiology—Lectures ..	9.15	..	9.15	..	9.15	..
—Practical ..	..	..	..	..	3-5	..
Dental Mechanics— Lectures ..	..	..	..	4	..	..
Dental Metallurgy— Lectures ..	..	..	..	..	12	..
2nd TERM.						
<i>B.Ch.D.</i>						
Anatomy—Lectures ..	9.15	..	9.15	..	9.15	..
—Practical ..	..	2-4	..	2-4	2-4	..
Physiology—Lectures ..	..	9.15	12	9.15	..	..
—Practical ..	10-12	10-12	10-12	..	..	..
Dental Mechanics— Lectures ..	..	..	..	4	..	..
Dental Metallurgy— Practical ..	..	2-5	..	..	..	..
<i>L.D.S.</i>						
Anatomy—Lectures ..	..	2	2	..	2	..
—Practical ..	..	3-4	3-4	2-4	..	..
Physiology—Lectures ..	9.15	..	9.15	..	9.15	..
—Practical ..	..	10-12	..	..	3-5	..
Dental Mechanics— Lectures ..	..	..	..	4	..	..
Dental Metallurgy— Practical ..	..	2-5	..	..	..	..

TIME TABLES

(Subject to alterations).

NORMAL COURSES.

Lectures and Practical Classes.	HOURS.					
	M	Tu.	W	Th.	F.	S.
3rd TERM.						
<i>B.Ch.D.</i>						
Anatomy- Lectures	9-15		9-15	..	9-15	..
" Practical	2-4	2-4	2-4	2-4	..	..
Physiology—Lectures	..	9-15	12	9-15	..	..
" Practical	10-12	..	10-12	..	2-4	..
" Tutorial	..	12	..	..	..	..
<i>L.D.S.</i>						
Anatomy Lectures		2	2	..	2	..
" Practical		3-4	3-4	2-4	3-4	..
Physiology Lectures	9-15	..	9-15	..	9-15	..
" Practical	..	..	10-12	10-12	..	..
IN JULY						
Dental Materia Medica	Hours to be arranged					
FOURTH YEAR.						
1st TERM						
<i>B.Ch.D.</i>						
Anatomy—Lectures		9-15		9-15		9-15
" - Practical			2-4	2-4	2-4	..
Physiology—Lectures	9-15		9-15		9-15	..
" -Tutorial			12			..
" Practical	10-12	10-12		10-12		..
	2-4	2-4		..	..	..
Pharmacology	12		..	..
Dental Anatomy -						
Lectures	..		..	12	..	..
Dental Surgery—Lectures	..	12		..	..	..
<i>L.D.S.</i>						
Pathology and						
Bacteriology	2-3.30	..		2-3.30	..	..
Dental Anatomy—						
Lectures	..	..	..	12	..	..
Dental Surgery—Lectures	..	12	..	..	..	..

TIME TABLES

(Subject to alterations)

NORMAL COURSES.

Lectures and Practical Classes.	HOURS					
	M	Tu.	W	Th.	F	S.
2nd TERM.						
<i>B.Ch.D.</i>						
Anatomy—Lectures ..	..	9.15	.	9.15		9.15
" Practical ..	2-4	2-4	2-4	2-4	2-4	..
Physiology - Lectures ..	9.15	.	9.15	..	9.15	..
" Tutorial ..	..	..	12	.	.	.
" -Practical ..	..	10-12	.	10-12	.	.
Pharmacology ..	..	12	..	.	.	..
Dental Anatomy—						
Lectures ..	..	.	.	12	.	..
Dental Histology ..	..	.	.	..	4	..
Dental Surgery—Lectures	.	.	.	.	12	..
<i>L.D.S.</i>						
Pathology and						
Bacteriology ..	.	2-3 30	.	2-3 30	.	.
Medicine—Tutorial	12.4	9	.	..	9	..
Surgery ..	..	9	.	.	9	..
Dental Anatomy—						
Lectures ..	..	.	.	12	.	.
Dental Histology ..	..	.	.	..	4	..
Dental Surgery—Lectures	..	3 30	..	.	12	..
3rd TERM						
<i>B.Ch.D.</i>						
Medicine - Introductory	9	.	.	9	.	.
Surgery ..	.	9	.	.	9	.
Pharmacology ..	12	.	.	.	.	11
Anæsthetic Dents ..	.	.	.	..	.	..
Operative Dental Surgery	..	12	.	.	12	..
Orthodontics—Lectures	..	.	.	.	.	..
Dental Radiology ..	..	3 30	..	.	.	..
<i>L.D.S.</i>						
Medicine - Introductory	9	.	..	9	.	.
Surgery ..	.	9	..	.	9	.
Anæsthetic Dents ..	.	.	.	.	.	11
Dental Pathology and						
Bacteriology ..	2 3-30	2-3-30	.	.	.	..
Operative Dental Surgery	..	12	.	.	12	..
Orthodontics—Lectures	..	.	.	.	.	..
Dental Radiology ..	..	3 30	..	.	.	..

TIME TABLES

(Subject to alterations).

NORMAL COURSES.

Lectures and Practical Classes.	HOURS.					
	M.	Tu.	W.	Th.	F.	S.
FIFTH YEAR.						
1st TERM.						
<i>B.Ch.D.</i>						
Medicine—Lectures .. ..	..	4	..	4	..	..
Pharmacology .. ..	..	12	..	..	..	..
Pathology and Bacteriology	2-3.30	..	..	2-3.30	..	..
<i>L.D.S.</i>						
Medicine—Lectures .. ..	..	4	..	4	..	..
2nd TERM.						
<i>B.Ch.D.</i>						
Medicine—Lectures .. ..	..	..	9	..	..	..
„ Tutorial	12-4	..	..	..	..	..
Surgery—Lectures .. ..	..	9	..	..	9	..
Pharmacology .. ..	..	..	..	12	..	..
Pathology and Bacteriology .. ..	..	2-3.30	..	2-3.30	..	..
<i>L.D.S.</i>						
Medicine—Lectures .. ..	..	..	9	..	..	..
Surgery—Tutorial .. ..	..	..	12	..	..	..
3rd TERM.						
<i>B.Ch.D.</i>						
Surgery—Lectures .. ..	..	9	..	..	9	..
Dental Pathology and Bacteriology	2-3.30	2-3.30	..	..	..	..
SIXTH YEAR.						
1st TERM.						
<i>B.Ch.D.</i>						
Medicine—Lectures .. ..	..	4	..	4	..	..
2nd TERM.						
<i>B.Ch.D.</i>						
Medicine—Lectures .. ..	..	..	9	..	..	..
Surgery—Lectures .. ..	..	9	..	..	9	..
„ —Tutorial .. ..	..	..	12	..	..	..

SCHOLARSHIPS & FELLOWSHIPS

GENERAL REGULATIONS

1. No election to a Scholarship or Fellowship will take place unless the candidate has attained a sufficient standard of merit. A candidate who has attained such standard may, if the Senate think fit, be elected to a Fellowship or Scholarship without emolument.
2. All Scholarships and Fellowships are held subject to the good behaviour of the Scholar. The University reserves the power to determine the tenure of a Scholarship or Fellowship for irregularity in attendance at lectures, or for any other sufficient cause. A Scholar who fails in any University examination for which he prepares in the University, or who is reported unsatisfactory in the aggregate of his terminal examinations during the session, will forfeit his Scholarship, unless his retention of it be specially allowed.
3. Scholars and Fellows are required to devote the whole of their time to their studies, except so far as stated below. The undertaking by a Scholar or Fellow of outside work, such as teaching, or the acceptance of any post of profit outside the University will involve surrender of the Scholarship, or Fellowship, unless such work be undertaken with the sanction of the Vice-Chancellor. The Clothworkers' Scholars and others preparing for any profession or trade, the principles of which are taught in the University, will be granted special exemption from this rule if the Senate is satisfied that an adequate cause has been shown for such exemption, and approves the arrangement proposed in each particular case.
4. The Senate reserves power to declare any Scholarship or Fellowship vacant or to reduce its value on the ground that the Scholar has previously or subsequent to his election acquired another Scholarship.
5. Scholars who are preparing for University degrees are required to present themselves for the degree examinations of the University of Leeds, and are not allowed (except by the special permission of the Senate) to present themselves for the examinations of any other University.

ENTRANCE SCHOLARSHIPS

Corbet Woodall Scholarship in Gas Engineering

This Scholarship was endowed in 1915 by Sir Corbet Woodall, through the Institution of Gas Engineers, and is to be held at the University of Leeds. The annual value of the Scholarship is £60. It is tenable for three years, with power of extension for a fourth year on the recommendation of the Senate to the Corbet Woodall Scholarship Committee. The continuation of the Scholarship each year after the first will depend on the work done by the scholar in the previous year being reported to the Committee as satisfactory.

The Scholarship is intended to enable a student to take a course of study in Gas Engineering at the University, in preparation for a responsible position as a gas engineer. Candidates for election to the scholarship are required (i) to produce evidence of having reached a standard of scientific or technological education sufficient to enable them to take advantage of the B.Sc. degree, or Diploma course in Gas Engineering, and (ii) to give an undertaking of their intention to follow the profession of gas engineer. On each vacancy the award of the scholarship will ordinarily be made during the month of June, after due advertisement in the technical press. The Scholarship will be awarded by the Senate after consultation with the Corbet Woodall Scholarship Committee.

Each candidate is required to submit (i) a statement of his previous education and of his scientific or technological qualifications, (ii) testimonials (*a*) from the head of the Institute in which he received his previous education, (*b*) if he has been already engaged in a gas engineering works, from the engineer of the works. The Senate, in conjunction with the Corbet Woodall Scholarship Committee, will determine what examination, if any, is necessary in order to guide them in the award of the scholarship.

William Cartwright Holmes Scholarship in Gas Engineering

This Scholarship was endowed in 1929 by Mr. P. F. Holmes and Mr. D. M. Henshaw as a memorial to William Cartwright Holmes of Huddersfield.

The Scholarship is held at the University of Leeds. The normal value of the Scholarship is £170 per annum, and it is tenable for one, two or three years, with power of extension for a fourth year on the recommendation of the Senate to the William Cartwright Holmes Scholarship Committee, appointed by the Institution of Gas Engineers.

The continuation of the Scholarship each year after the first will depend on the work done by the Scholar in the previous year being reported to the Committee by the Senate as satisfactory.

The Scholarship is intended to enable a student to take a course of study at the University in preparation for a responsible position in Gas Engineering.

Candidates for election to the Scholarship are required (i) to produce evidence of having reached a standard of scientific or technological education sufficient to enable them to take advantage of the B.Sc. degree or Diploma Course in Gas Engineering, and (ii) to give an undertaking of their intention to follow the profession of Gas Engineering.

As each vacancy occurs the award of the Scholarship will ordinarily be made during the month of June, after advertisement in the Technical Press.

The Scholarship will be awarded by the Senate after consultation with the William Cartwright Holmes Scholarship Committee.

Each candidate is required to submit (i) a statement of his previous education and of his scientific or technological qualifications; (ii) testimonials (a) from the head of the Institute or other organisation in which he received his previous education; (b) if he has been already engaged in a gas engineering works, from the Engineer or Manager of the works.

The Senate, in conjunction with the William Cartwright Holmes Scholarship Committee, will determine what examination, if any, is necessary in order to guide them in the award of the Scholarship.

Blanche L. Leigh Scholarship

Mrs. Percy Leigh presented to the University in 1931 a sum of money for the establishment of a scholarship

or scholarships in Music. The conditions of award are under consideration.

William Cooke & Company Scholarship

(This Scholarship is in abeyance for the present)

This Scholarship was instituted in 1906 by Messrs. William Cooke & Co., of Sheffield.

It is of the annual value of £21, and is tenable for three years. It is awarded triennially.

Candidates must be either (a) mining students articulated to mining engineers, colliery managers, or colliery proprietors; or (b) persons who are actually employed underground at a colliery, or who have been employed underground for a period exceeding three years.

The Scholar will be required to pursue the course of study prescribed for the diploma in Coal Mining, and to present himself, as soon as he is properly qualified, as a candidate for that diploma, and also for the Colliery Manager's First Class Certificate of competency to manage a Mine. He must attend this course regularly, and must take his examinations in the proper order and at the time laid down by the regulations of the University.

The Scholarship will be awarded on the result of an examination in (1) English Composition; and (2) Mathematics (Arithmetic; Algebra, including quadratic equations; the Elementary Geometry of triangles, parallelograms, and circles, and of similar rectilinear figures), which two subjects are compulsory on all candidates; and also in one or more of (3) Mechanics; (4) Physics; and (5) Chemistry.

The examination will ordinarily be held about the middle of June. Applications from candidates for this Scholarship must be sent to the Clerk to the Senate *not later than May 1st*, after which date no application will be received.

Clothworkers' Free Studentships (Evening)

The Worshipful Company of Clothworkers of the City of London offer twelve Free Studentships, each of the value of £2 10s., to selected students from certain Technical Schools in the West Riding who may desire to attend the advanced Evening Classes in the Department of Textile Industries in the University of Leeds. Each Free Student-

ship is tenable for one year, and may not be held by the holder of any other Scholarship or Exhibition.

Woolmen's Company Scholarship

1. This Scholarship was founded in 1927 by the Worshipful Company of Woolmen with the object of encouraging study in connexion with the Wool Trade.

2. The Scholarship is of the annual value of £30, and is normally tenable for three academic years in the Department of Textile Industries.

3. The Scholarship is open to students entering upon the first year of a course of study leading to a degree or a diploma of the University in the Department of Textile Industries.

Failing a suitable candidate entering upon the first year course of study, the Scholarship may be awarded to a student who has already completed the first or second year of his attendance in the Textile Industries Department and is desirous of completing his degree or diploma course of study in that Department.

Preference will be given to candidates whose means are otherwise insufficient to enable them to pursue their studies in the University.

4. When a vacancy occurs, the Scholarship will be advertised in the press. Applications should be sent in to the Clerk to the Senate not later than June 30th. Applicants may be required to present themselves for a special examination, which will be held in September.

Yorkshire Union of Institutes (Edward Baines Scholarship)

This Scholarship is intended for students of either sex who have done satisfactory work at Evening Technical Schools, or Classes; a suitable amount of workshop or mill experience will also ordinarily be required. Candidates must have been members of, or students at, an Educational Institute in affiliation with the Yorkshire Union of Institutes for at least twelve months prior to the date of application, and must have had two years' practical experience, which, in

the opinion of the Council of the Union, is of a character allied to the trade or profession in preparation for which the Scholarship would be utilised. Applicants must not be under 18, or over 30 years of age.

The Scholarship will be of the value of £40 per year. This amount will cover the tuition fees, and leave a margin available for books, travelling expenses, &c. The Scholarship will be awarded in the first instance for one year, renewable for a second and a third year in the event of satisfactory progress.

If the holder of a Scholarship ceases to follow the approved Course of Instruction at the University during the currency of any educational year, the payments made on his or her behalf for such year, or such part of them as the Council of the Union may determine, must be refunded by the holder (or by the parent or guardian) unless the leaving be due to illness or some other cause which may be considered sufficient by the Council of the Union. Each holder (or his or her parent or guardian) must enter into an agreement to carry out this condition.

Applications must be made on Forms which may be obtained from the Secretary, The Yorkshire Union of Institutes, 20, Vernon Road, Leeds. These Forms must be filled up in every particular and despatched so as to reach the Office of the Union on, or before, June 30th, in the year when the Scholarship is offered.

Applicants for Scholarships should give full particulars of the whole of their previous work in fundamental or allied subjects, and preference will be given to any one who may have followed a Group Course of Instruction on recognised lines. Applicants will be required to give evidence of having studied for at least two winters in a Technical School, and to produce a nomination or recommendation from the Managers of the School, endorsed by their employers.

The selection will be based mainly upon the results obtained by the Candidates at the Examinations of the Board of Education, and the City and Guilds of London Institute, respectively; the Council of the Union reserve the right to hold any further examination, or impose any further requirement, in order to assist them in their selection of candidates.

AWARDED BY PUBLIC BODIES OR TRUSTEES

City and County Council Scholarships

Scholarships tenable at the University of Leeds in scientific and technical subjects (including Agriculture), as well as in Arts subjects, are offered by the Leeds City Council and the County Councils of the North, East, and West Ridings of Yorkshire.

In certain cases assistance is offered to students in Evening Classes.

For further information application should be made as follows :—

For Leeds City Council Scholarships : To the Director of Education (Higher Section), Education Department, Leeds.

For West Riding Scholarships and Free Studentships : To the Education Department, County Hall, Wakefield. Applicants should ask for Section X of Part II of the Handbook of the Education Committee.

For North Riding Scholarships : To the Secretary, County Education Offices, County Hall, Northallerton.

For East Riding Scholarships : To the Clerk, East Riding County Council, Beverley.

In all cases where there is a possibility of Scholarships being renewed, application for renewal should be made to the Clerk to the Senate not later than the end of the second term.

Board of Education Assisted Studentships

The Board of Education pay three-fourths of the fees in the following Day classes, and one-half of those in the Evening classes, for a limited number of teachers engaged in science teaching.

Applications for this privilege must be made to the Secretary, Board of Education, Whitehall, S.W.1, not later than the beginning of September in each year.

DAY CLASSES

Physics : Any of the lecture courses, not exceeding two in number ; laboratory instruction for not less than half a day per week.

Chemistry : Lectures and laboratory as above.

Geology : Lectures and laboratory as above.

Civil and Mechanical Engineering : Lectures and laboratory as above.

Electrical Engineering : Lectures and laboratory as above.

Zoology : The lecture courses, Introductory, Final and Honours ; laboratory instruction as above.

Botany: The lecture courses, Introductory and Final; laboratory as above.

Mathematics: Any of the lecture courses, not exceeding two in number.

Agriculture: Any of the lecture courses, not exceeding two in number.

Agricultural Chemistry: Any of the lecture courses, not exceeding two in number. Laboratory instruction for not less than half a day per week.

EVENING CLASSES

Electrical Engineering: Any of the lectures and the practical classes.

Civil and Mechanical Engineering: Any of the lecture classes, laboratory or drawing instruction.

William Walker Exhibitions

These Exhibitions are intended to enable students to obtain at Leeds University scientific instruction of an advanced character in the Technology of Coal and its Bye-products and in the Technology of Leather. Each Exhibition is of the annual value of from £70 to £90 and (subject to the condition named below) is tenable for three years, with power of extension by the trustees for a fourth year in the case of an Exhibitioner who has shown exceptional promise during his course of training at the University. The continuation of the Exhibition each year after the first will depend on the work done by the Exhibitioner in the previous year being reported to the Trustees as satisfactory. The Trustees may, if they think proper, divide the income of each Exhibition between two candidates, or only award part of it in certain cases, as determined by circumstances.

Candidates for election to the Exhibitions must be natives of, or living in the Poor Law Unions of Whitehaven and Bootle, except the Urban District of Millom, and between the ages of 16 and 22.

Applications for leave to enter for the examination and any inquiries for further information should be addressed to the Secretary, Mr. A. C. Clifford, Secondary School, Whitehaven.

Dental Board Bursaries

The Dental Board of the United Kingdom awards Bursaries to suitable students to enable them to pursue a course of study with a view to obtaining a registrable dental qualification. Particulars of these Bursaries and forms of application may be obtained from the Registrar, Dental Board of the United Kingdom, 44, Hallam Street, London, W.1.

SENIOR SCHOLARSHIPS

Several of the Scholarships mentioned below were formerly awarded as Entrance Scholarships but are now offered for competition as Senior Scholarships and are normally open only to students who are actually in attendance at the University.

GENERAL REGULATIONS

1. Senior Scholarships are open to registered students of the University who have completed one or more sessions in the University ; but the Senate may at their discretion utilise Senior Scholarship Funds for making grants to students who have not completed one year's attendance in the University.

2. Senior Scholarships, unless otherwise specified, are awarded in the first instance for one year and are renewable.

3. Senior Scholars are in general required to pursue courses of study for degrees or post-graduate diplomas of the University.

4. In awarding the Scholarships consideration will be given to the financial circumstances of the candidates, and the Senate reserves the power of reducing the value of any Scholarship at any time.

5. Applications for Senior Scholarships must be sent to the Clerk to the Senate *not later than March 1st* of each year.

6. Senior Scholarships will be awarded on the results of the June degree and departmental examinations ; and the awards will be announced in July.

7. The following Senior Scholarships are offered for competition :—

Emsley.

Edward Baines.

Charles Wheatley.

William Summers.

Akroyd.

Brown.

Craven.

Salt.

Medical.

Infirmary.

Stephenson Clarke.

Alfred Lund.

Clothworkers'

DETAILED REGULATIONS**Emsley Scholarship**

This Scholarship was endowed in 1886 by the late Thomas Emsley, Esq., of Burley-in-Wharfedale, who bequeathed £1,000 for the purpose of founding one or more Scholarships in the Yorkshire College.

The Scholarship is tenable in the Faculties of Arts, Science, or Technology (except Textile Industries).

Annual income, £42.

Edward Baines Scholarship

The Edward Baines Scholarships, founded in 1885, are established by the University in consideration of the sum of £3,000 which was raised to commemorate the public services of the late Sir Edward Baines. One-half of the sum annually devoted to this purpose is awarded by the University in the form of a Scholarship tenable by candidates who have attended a Public Elementary School within the City of Leeds; the other half is awarded in the form of a Scholarship by the Yorkshire Union of Institutes.

The Scholarship is tenable in the Faculties of Arts, Science, or Technology (except Textile Industries).

Annual income £40.

Charles Wheatley Scholarship

This Scholarship was established by the University in 1903, in consideration of the sum of £1,500 given by the Misses Robinson of Mirfield, and Mrs. Steele of Kettering, in memory of the late Charles Wheatley, Esq., of Mirfield. In case of equality of candidates, a preference is to be given to residents in Mirfield.

The Scholarship is tenable in the Faculty of Arts, and the Scholar elected will be required to pursue a course for the B.A. or LL.B. degree of the University.

Annual income £50.

William Summers Scholarship

This Scholarship was founded by Mr. and Mrs. Buckley, of Ryecroft Hall, Audenshaw, near Manchester, in memory of William Summers, Esq., late M.P. for Huddersfield, and for many years a member of the Court of the Victoria University.

Candidates for this Scholarship must have been resident in the Parliamentary Borough of Huddersfield during one full year, or must have attended a public school in the said Borough for the same period.

The Scholarship is tenable in the Faculty of Arts and the Scholar elected will be required to pursue a course for the B.A. Honours degree.

Annual income £35.

Akroyd Scholarship

These Scholarships are maintained by funds accruing from the Akroyd Trust, and are intended for the encouragement of the study of Natural Science. These Scholarships are tenable for three years.

Women are not eligible for the Akroyd Scholarships.

The Scholarships are tenable in the Faculties of Science or Technology.

Annual income, £320.

Brown Scholarship

These Scholarships were endowed in 1877 by the late Henry Brown, Esq., of Bradford and Rawdon, who bequeathed £5,000 to the Yorkshire College for the purpose of founding five or more Scholarships to be called the Brown Scholarships, for students attending the said College and receiving instruction in the various branches of those sciences which are applicable to the Industrial Arts.

A preference will be given, *ceteris paribus*, to candidates who have declared their intention of entering some industry instruction in the principles of which is given in the University, or of engaging in the teaching of Science. In the case of equality of candidates, a

preference will be given to residents in Bradford or natives of Bradford.

The Scholarships are tenable in the Faculties of Science or Technology.

Annual income, £218.

Craven Scholarship

This Scholarship was established in the year 1887, by a number of the Engineers of Leeds, in recognition of the services rendered by the late Joseph Craven, Esq., to the Mechanical Engineering trades of the district.

Candidates must have been, previous to the day of examination, resident in the City of Leeds for a period or periods amounting together in the aggregate to at least five years, and be so resident at the time they present themselves for examination.

The Scholarship is tenable in the Faculty of Technology.

Annual income, £32.

Salt Scholarship

This Scholarship was founded by the late Sir Titus Salt, Bart., in 1875.

Candidates must be scholars or registered students of the University in at least their sixth term.

The value of the Scholarship is £20 a year, and it is tenable for two years.

The Scholarship is tenable in the Faculty of Arts, and the Scholar elected will be required to continue a course of study at the University preparatory for a degree in Arts of the University of Leeds. In the event of graduation at the end of the first year of tenure, the Scholar will be required to pursue a course of post-graduate study satisfactory to the Senate.

Medical Scholarship

This Scholarship was instituted by the Leeds School of Medicine in 1888. It now consists of a free ticket

to the lectures and laboratory courses in the Faculty of Medicine of the University.

This Scholarship is tenable in the Faculty of Medicine and is awarded, after a report from the examiners, on the results of the *First* M.B. examination of the University of Leeds.

Infirmary Scholarship

* This Scholarship was founded in 1888 by the Faculty of the Leeds General Infirmity. It is of the value of £75 and consists of a free ticket to the clinical teaching of the Leeds Infirmity. The holder is required to enter as a student for the whole medical curriculum at the University in the session following the date of examination.

This Scholarship is now awarded, after a report from the examiners, on the results of the *Second* M.B. examination of the University of Leeds.

Stephenson Clarke Scholarship

(Tenable in the Textile Industries Department and in the Department of Colour Chemistry and Dyeing).

1. The Scholarship was founded in 1926 by Colonel Stephenson Robert Clarke, C.B., LL.D., Master 1924-25 of the Clothworkers' Company who are the Trustees.

2. The endowment of the Scholarship consists of £1,000. The annual value of the Scholarship consists of the free income of this endowment and amounts approximately to £45 per annum.

3. The Scholarship will be awarded annually. Subject as hereinafter mentioned (para. 5) the Scholarship will be awarded in the first year to a student in the Textile Industries Department and in the following year to a student in the Colour Chemistry and Dyeing Department and will continue to be thus alternately awarded.

The object of the Scholarship is to enable the successful candidate to undertake a 3rd or 4th year course of study in one of these Departments, and candidates

must be completing respectively their 2nd or 3rd year attendance in either the Textile Industries or the Colour Chemistry and Dyeing Department. A preference will be given to students completing a 3rd year and desiring to enter for a 4th year course of study.

4. The Scholarship is tenable for one academic year.

5. Failing the application of a qualified candidate for the Scholarship in the Department to which the Scholarship falls in a given year, the Scholarship may be awarded to another qualified student in the other Department, but without affecting the ordinary sequence.

6. Failing the application in any year of a qualified candidate in either Department, the amount of the Scholarship for that year shall be added to capital.

7. The appointment to a Scholarship shall be made by the Founder of the Scholarship during his lifetime out of nominations submitted by the Vice-Chancellor. Thereafter the appointment shall be made by the Court of the Clothworkers' Company in like manner.

8. Clauses 1, 2 and 3 of the General Regulations of the University of Leeds relating to Scholarships shall, so far as may be applicable, apply to the Stephenson Clarke Scholarship.

9. Power is reserved to the Founder (Colonel Stephenson Robert Clarke) during his lifetime and afterwards to the Trustees (the Clothworkers' Company), in the latter case after consultation with the Senate of the University of Leeds, to alter or modify the above Regulations, including the amount of the Scholarship or Scholarships to be awarded.

10. Any dispute or difference arising in regard to the construction of any of the above rules and regulations or conditions or in regard to any award made thereunder shall be settled by the Founder during his lifetime and afterwards by the Trustees, any such decision to be final and conclusive.

Applications to be sent to the Clerk to the Senate
not later than June 1st of each year.

Alfred Lund Scholarship

1. This fund was instituted in 1924 by the late Alfred Lund, Esq., of Pudsey, for the purpose of assisting deserving students to complete their studies in the Departments of Colour Chemistry and Dyeing and Textile Industries, or to prosecute advanced study and research in some branch of knowledge germane to the dyeing and textile industries.

2. The number of Scholarships awarded each year will depend upon the number of suitable candidates and the amount of income available. The Scholarships are of the annual value of £25, which may be supplemented by a grant for maintenance not exceeding £100. They are awarded for one year and may be renewed.

3. Students who have attended courses of study for degrees or diplomas of the University in the Department of Colour Chemistry and Dyeing or the Department of Textile Industries, for not less than one session, are eligible for the Scholarships.

4. Holders of the Scholarships are required either to complete their courses for a degree or diploma in the Departments of Colour Chemistry and Dyeing or of Textile Industries, or, if they have completed such courses, to pursue advanced study and research in the University or in some other University or learned institution, under suitable guidance in a manner approved by the Senate

5. The Scholarships are awarded by the Senate, on the recommendations of the Professors of Colour Chemistry and Dyeing and of Textile Industries, at the end of the summer term.

6. Scholars are required to furnish reports of the work done by them during the tenure of the Scholarship, such reports to be forwarded to the Clerk to the Senate before June 1st of the year following the award of the Scholarship, in order that they may be laid before the Senate.

Clothworkers' Scholarships

These Scholarships were founded in 1875 by the Worshipful Company of Clothworkers of the City of London, who offer the sum of £60 annually to provide one or more Scholarships for students in the Department of Textile Industries. The Scholarships are open to students completing their first or second year of attendance in the Department and are tenable for one year.

The Scholarships are awarded on the results of the third term examinations.

Applications from candidates for these Scholarships must be sent to the Clerk to the Senate *not later than June 1st* in each year.

GRADUATE SCHOLARSHIPS

In Arts, Science, Technology or Medicine University Scholarships

A limited number of University Scholarships may be offered annually, and will ordinarily be awarded to students who have shown special merit in the Final examinations of the Honours' Schools of the University. In the election of Scholarships, preference will ordinarily be given to students who are prepared to undertake advanced study or research. When such advanced study or research is undertaken in the University, or in some other University or learned institution, or under suitable guidance in a manner approved by the Senate, an additional maintenance grant not exceeding £100 may be made; in other cases the Scholarship will be of the value of £25.

Scholars who receive a grant additional to the £25 will be required to furnish a report of the work done by them during the tenure of the Scholarship, such report to be sent in to the Clerk to the Senate before June 1st of the year following the award of the Scholarship, in order that it may be laid before the Senate. Scholarships may be renewed for a second year when the scholar is undertaking advanced study or research.

Applications for renewal must be sent to the Clerk to the Senate before the end of the second term.

West Riding Research Grants

A sum of £500 has been earmarked by the West Riding Education Committee for the purpose of awarding Research Grants to West Riding students, on the recommendation of the University Authorities.

The recommendations are decided upon by the Senate on the results of Honours Degree Examinations.

IN THE FACULTY OF ARTS

John Rutson Scholarship

This Scholarship was founded by Mr. Henry Rutson of Northallerton, in memory of his brother Mr. John Rutson. It has been assigned to the Faculty of Arts for the encouragement of research, and the Scholar will be chosen from amongst those who have shown promise of ability to conduct such research.

The Scholarship is of the annual value of about £70 and is tenable for one year, but may be renewed for one year more.

The successful candidate shall be required to undertake advanced study or research in the University, or in some other University or learned institution, or under suitable guidance in a manner approved by the Senate.

The Scholar shall also be required to furnish a report of the work done by him or her during the term of the Scholarship, such report to be sent in to the Clerk to the Senate before June 1st of the year following the award of the Scholarship, in order that it may be laid before the Senate.

Applications for renewal must be sent in to the Clerk to the Senate before the end of the second term.

Gilchrist Studentship in Modern Languages

This Studentship was instituted in 1905 by the Gilchrist Educational Trust (founded by Dr. Gilchrist, who died in 1841) for "the benefit, advancement and propagation of education and learning in every part of the world, as far as circumstances permit." It is of the value of £80, is tenable for one year, and is open to graduates of either sex who have taken Honours in Modern Languages in the Final degree examination of the University, and who are proposing to enter the profession of teaching in secondary schools. The purpose of the Studentship is to enable the holder to pursue a special course of study abroad with a view to qualifying himself (or herself) for teaching modern languages in a secondary school.

The regulations are as follows:

1. The Studentship is awarded bi-ennially by the Gilchrist Trustees. The next award will be made in 1932.

2. Candidates must have obtained Honours in Modern Languages in the Final examination for a degree, and be recommended by the University after consultation with the Professors concerned, and after special inquiry into the suitability of the candidates for the profession of teacher in a secondary school. If possible, two names shall be submitted each year to the Trustees for their consideration. Save in exceptional circumstances, of which the Trustees shall be the sole judges, the examination must be that immediately preceding the date of application.

3. The holder of the Studentship will be required to follow a course of preparation for the profession of Modern Language teacher, and must submit his (or her) proposed course of work for the approval of the Trustees, who will take steps to satisfy themselves that the course of preparation proposed to be undertaken is suitable for the purpose in view.

4. The tenure of the Studentship is for one year beginning on the date of election, and the emoluments will be paid half yearly by the University on production of evidence that the proposed course of preparation is being satisfactorily carried out.

5. The Student will be required, at the expiration of the tenure of the Studentship, to send in to the Clerk to the Senate a report to the University, setting out the course of work and preparation which has been pursued, and this report together with a covering communication from the University shall be forwarded to the Trustees.

Bodington Memorial Fund

The Bodington Memorial Fund commemorates the work of the late Sir Nathan Bodington as Principal of the Yorkshire College and first Vice-Chancellor of the University of Leeds. It is devoted to the encouragement of advanced study in Greek and Latin (including language, literature, history, philosophy, and archæology) among graduates of the University.

The scheme for the administration of the Fund includes the following provisions:—

An award or awards will be made annually by the University whenever there are competent applicants.

The income will be allowed to accumulate when no awards are made, the accumulations to be treated as current year's income.

The award or awards will take the form of a Fellowship, Scholarship, Prize, or Grant, or any combination of these, as may seem from time to time practicable and desirable.

The income annually awarded is approximately £45.

Since the foundation of the Fund, grants have been made for the purchase of books and for visits to libraries or other centres of research. Awards of money may, however, be

made for any other objects cognate to the Trust. It is hoped that when the accumulated funds allow, a Fellowship or Scholarship tenable for one year may be awarded to a graduate who has published or prepared for publication a work of distinction in the field of classical learning.

Applications should be sent in to the Clerk to the Senate *not later than June 1st* in each year.

Lady Elizabeth Hastings Senior Scholarship •

The authorities of Queen's College, Oxford, have instituted a Lady Elizabeth Hastings Senior Scholarship, tenable at that College, by graduates from the Leeds and Sheffield Universities, under the following conditions.—

1. This Scholarship shall be called the Lady Elizabeth Hastings Senior Scholarship, to be awarded with a view to a course of higher Humanistic study at the Queen's College in the University of Oxford, and shall be of the annual value of £125.

2. The Scholar shall be elected by the College, after or without examination, as they shall determine.

3. The Scholarship shall be confined to British-born students, being sons of British-born parents, of the University of Leeds or of Sheffield, who have passed with Honours all the examinations requisite for the degree of Bachelor of Arts in the University to which they belong and also have completed the third and not exceeded the fifth year from their admission to the University.

4. The Scholar shall be elected in the month of July and begin residence in the Michaelmas Term next succeeding, and the scholarship shall be tenable during residence for one year. At the end of which period the College may re-elect him for a further period of one year provided that they are satisfied with his industry and progress, and at the end of this second period the Scholarship shall determine.

5. The Vice-Chancellor of Leeds or the Vice-Chancellor of Sheffield in his turn may, upon the occasion of a vacancy, recommend in writing to the Provost one or more candidates for election.*

*The next recommendation by Leeds University will ordinarily be made in 1932.

6. The College will proceed to the election of a scholar, provided that, in their opinion, a suitably qualified candidate presents himself.

7. The Scholar shall reside within the University during the three academic terms of each year, and within the College for at least his first year.

8. The Scholar must be unmarried and will *ipso facto* vacate the scholarship on marriage, or upon his being elected to a Fellowship or other office of emolument, or if he ceases to be a member of the College.

IN THE FACULTIES OF SCIENCE OR TECHNOLOGY

1851 Exhibition Industrial Bursary

The Commissioners for the Exhibition of 1851 have established a scheme of Industrial Bursaries for young men who, after a course of training in a University or approved Technical College, desire to take up Engineering, Chemical or other industrial work. The Bursaries are intended, not to facilitate the continuance of collegiate studies by means of post graduate work, but to enable suitable applicants to tide over the period between their leaving College and obtaining remunerative employment in industry. The value of the Bursary will depend on the circumstances of the candidate, but will as a rule not exceed £150 a year.

A Bursar will be elected in the first instance for one year, but the tenure of his Bursary will ordinarily be prolonged for a second year provided that the Commissioners are satisfied with the work done by the Bursar during his first year. In special circumstances a Bursary may be renewed for a third year. The appointments to the Bursaries will be made by the Commissioners from among candidates recommended by the Authorities of certain selected Universities and Technical Schools.

N.B.—In the consideration of these recommendations great weight will be given to evidence that a candidate has the practical ability likely to lead to his advancement in industrial work; academic success alone is not a sufficient recommendation.

The candidate must be a British subject, under the age of 25, and must have been a *bona fide* student of Science

for a term of three years. He must further satisfy the Commissioners :—

- (a) That he has obtained, or can, within a short period, obtain an industrial post to be approved by them.
- (b) That he is in need of pecuniary assistance to enable him to hold such a post.

A Bursar may, if the Commissioners approve, spend part of the tenure of his Bursary in studying a special industrial process or processes in works either at home or abroad. No Bursar shall enter a firm as a premium pupil without the special consent of the Commissioners. A Bursar must submit to the Commissioners, on the expiration of each year of his Bursary, a satisfactory report of his work from his employers.

Applications will be received by the Clerk to the Senate *not later than May 1st* in each year.

Arthur Smithells Scholarship

This Scholarship was founded in 1926 from the balance, amounting to £2,079, of a fund raised to commemorate the services rendered to the University by Emeritus Professor Smithells, Professor of Chemistry 1885-1924. Its object is the elucidation by scientific research, in any Department of the University, of the phenomena of combustion, in the widest sense.

The Scholarship, of the approximate annual value of £100, is tenable in the first instance for one year, and may be renewed for a similar period or periods. The appointment is made at the close of the third term.

The Scholarship is open to graduates of the University. All candidates are required, when sending in their applications, to specify the subject in which they propose to undertake research.

The Scholar is required to pursue research in a Department of the University of Leeds, under the direction of the Head of the Department, and to present a report of his work, such report to be sent to the Clerk to the Senate before June 1st.

Applications should be in the hands of the Clerk to the Senate *not later than June 1st* in each year.

The Richard Reynolds Scholarship

This Scholarship was endowed in 1928 by the late Alderman F. C. Clayton, of Birmingham, who served his apprenticeship with the firm of Harvey and Reynolds, manufacturing chemists, Leeds, during the years 1859-1864. The donor bequeathed £2,000 for the purpose of founding a scholarship to be called "The Richard Reynolds Scholarship" in recognition of the valuable training received by him from Richard Reynolds during his apprenticeship.

The Scholarship, of the annual value of £100, is tenable for one year and may be renewed for a second or third year.

The Scholarship is open to graduates of the University who have graduated in the Faculty of Science or the Faculty of Medicine.

The Scholar is required to pursue research in some branch of Chemistry or Pharmacy in the University of Leeds, under the direction of the Head of the Department, and to present a report of his work, such report to be sent in to the Clerk to the Senate before June 1st.

The appointment will be made at the close of the third term. Applications should be in the hands of the Clerk to the Senate not later than June 1st in each year.

IN THE FACULTY OF TECHNOLOGY**Clothworkers' Research Scholarship in Colour Chemistry and Dyeing**

This Scholarship, of the value of £60 a year, tenable in the Department of Colour Chemistry and Dyeing, will be awarded annually upon the results of the Final examination for the B.Sc. degree, preference being given to candidates who graduate with Honours in Applied Chemistry (Colour Chemistry and Dyeing).

The Scholarship will be awarded for one year, but may, at the discretion of the Examiners, be extended to a second year.

The Scholar will be required to devote his whole time to carrying out some special branch of research in Colour Chemistry or Dyeing.

**Clothworkers' Research Fellowships and Scholarships
in Textile Industries**

These Scholarships and Fellowships are six in number and were instituted in 1928 from funds provided by the Worshipful Company of Clothworkers.

The Scholarships are of the annual value of £140 and the Fellowships of the minimum annual value of £160.

The Scholarships are open to graduates of the University of Leeds, to holders of the Diploma in Textile Industries of the University of Leeds, and to suitably qualified graduates of other Universities.

The Fellowships will normally be awarded to holders of Scholarships who have shown special aptitude for research work during their tenure of a Scholarship; but any duly qualified applicant may be granted a Fellowship on the ground of exceptional distinction without having previously held a Scholarship.

Both Scholarships and Fellowships are tenable for one year and may be renewed for one or more years.

The number of each to be awarded in any year will depend upon the funds available and on the number of suitable applicants.

Fellows and Scholars will be required to devote the whole of their time to research in some subject or subjects connected with the Textile Industries, under the direction of the Professor of Textile Industries, and to present a report of their work to the Senate not later than June 1st in each year.

The appointments will be made at the close of the third term. Applications should be in the hands of the Clerk to the Senate not later than June 1st in each year.

**Clothworkers' Research Fellowships and Scholarships
in Colour Chemistry**

These Scholarships and Fellowships are two in number and were instituted in 1928 from funds provided by the Worshipful Company of Clothworkers.

The Scholarships are of the annual value of £140 and the Fellowships of the minimum annual value of £160.

The Scholarships are open to suitably qualified graduates of any University, but preference will be given to graduates of the University of Leeds who have graduated with Honours in Colour Chemistry or have obtained the Ordinary degree of Bachelor of Science in Dyeing.

The Fellowships will normally be awarded to holders of Scholarships who have shown special aptitude for research work during their tenure of a Scholarship; but any duly qualified applicant may be granted a Fellowship on the ground of exceptional distinction without having previously held a Scholarship.

Both Scholarships and Fellowships are tenable for one year and may be renewed for one or more years.

The number of each to be awarded in any year will depend upon the funds available and on the number of suitable applicants.

Fellows and Scholars will be required to devote the whole of their time to research in the Department of Colour Chemistry and Dyeing, under the direction of the Head of the Department, and to present a report of their work to the Senate, such report to be sent in to the Clerk to the Senate not later than June 1st in each year.

The appointments will be made at the close of the third term. Applications should be in the hands of the Clerk to the Senate not later than June 1st in each year.

IN THE FACULTY OF MEDICINE

Thorp Scholarship in Forensic Medicine and Hygiene

The Thorp prizes, instituted by the late Dr. Disney L. Thorp, one of the original founders of the Leeds School of Medicine, are now awarded as one annual Scholarship of about £25 to a student or graduate of the University prepared to carry out research work in some subjects bearing upon Forensic Medicine or Public Health. For particulars, application should be made to the Dean of the Faculty of Medicine.

FELLOWSHIPS

University Fellowship

University Fellowships may be awarded to graduates of the University within three years from the date of graduation. Such Fellowships will be of the value of £150 tenable for one year. The object of the Fellowships is the encouragement of research, and the Fellow will be required to devote the whole of the time during which he continues to hold the Fellowship to the pursuit of such research under conditions approved by the Senate. In special cases an additional grant not exceeding £20 may be made to the Fellow by a special vote of the Senate and Council to assist him in carrying out his researches. No Fellow shall be permitted to hold any paid appointment, or to undertake remunerative work without previous permission from the Senate, which shall have power in such cases to reduce the value of the Fellowship.

Fellowships will not be awarded except to candidates who have given evidence of qualifications for undertaking original work. Fellows are required to send in to the Clerk to the Senate a report of the work done by them during the tenure of the Fellowship before June 1st of the year following the award of the Fellowship, in order that it may be laid before the Senate. The Fellowships may, in exceptional instances, and with the consent of the Senate and Council, be renewed for a second year.

Applications for renewal must be sent in to the Clerk to the Senate before the end of the second term.

Gas Research Fellowship

The Fellowship, of the value of £200 per annum provided by the Institution of Gas Engineers, will be awarded by the Senate, on the recommendation of the Board of Science and Technology, to a duly qualified candidate for the prosecution of post-graduate research in gas chemistry. Preference will be given to candidates who have signified their intention of entering the coal gas industry, or in default of any such candidate, to a person qualifying for some other branch of fuel industry.

The award of the Fellowship will be made annually during the month of June, after due advertisement of it in the technical press and other appropriate journals.

It will always be within the power of the Senate, on the recommendation of the Board of Science and Technology, to renew the Fellowship to the holder of the same for a further period of a year, instead of proceeding to a fresh election.

The holder of the Fellowship shall undertake research work in the University under the direction of the Livesey Professor of Coal Gas and Fuel Industries on some subject connected with the chemistry of gases and combustion. The selection of the subject, and the method of carrying on the work, will be left to the judgment of the Professor responsible for its direction.

The University will provide, free of charge, all reasonable accommodation and facilities required for the prosecution of the research undertaken by the holder of the Fellowship, including working space and the use of such instruments and appliances installed as part of the equipment of the Fuel and Metallurgical Department. Any *special* expenses, not exceeding £25, incurred during the prosecution of the research will be defrayed by the Institution of Gas Engineers.

A report of the research work carried out by the holder of the Fellowship shall be submitted to the Council of the Institution of Gas Engineers, as well as to the Senate of the University, on or before May 1st of each year, together with copies of any papers published in connection with the research.

Research Fellowship in Colour and Textile Chemistry

A Research Fellowship of the value of £100 per annum, instituted by the Council on the recommendation of the Textile Industries and Dyeing Committee, will be offered from time to time by the Senate upon the recommendation of the Board of Science and Technology, for the prosecution of scientific investigations in Textile and Colour Chemistry, under the direction of the Professor of Colour Chemistry. Preference will be given to candidates who have graduated in the University of Leeds with Honours in Colour Chemistry.

The Fellow will be required to devote the whole of his time to the pursuit of the research in question, and (unless the results are published in the form of a communication to a scientific or technical journal) to present a report of the

work to the Senate, such report to be sent in to the Clerk to the Senate before June 1st of the year following the award of the Fellowship. It will be within the power of the Senate, on the recommendation of the Board of Science and Technology, to renew the Fellowship to the holder of the same for a second year, instead of proceeding to a fresh election.

James Edmondson Ackroyd Fellowship

By a Deed executed in 1918, in memory of the late J. E. Ackroyd, Esq., the relatives of Mr. Ackroyd placed in the hands of the University a sum of £4,000 to be held in trust for the maintenance of a Scholarship, or Fellowship, for the promotion of research work for the furtherance of the Textile Industry of the West Riding of Yorkshire.

In accordance with the provisions of the Trust Deed, a Fellowship entitled the "James Edmondson Ackroyd Fellowship" of the value of not less than £150 per annum will be awarded by the Senate on the recommendation of the Board of the Faculties of Science and Technology.

The Fellowship shall ordinarily be awarded for a period of three years, which may be extended by a special resolution of the Senate for a further period not exceeding three years.

The Fellow shall be required to devote his whole time to the prosecution of research on some subject or subjects, approved by the Board of Science and Technology, bearing upon the production of wool, silk or other textile materials, or the manufacture of textile fabrics.

A Committee shall be appointed by the Board of Science and Technology to exercise a general supervision over the conduct of the research.

In the award of the Fellowship preference will be given to graduates in Science or Technology, but the essential qualification shall be capacity to pursue the research proposed, and it shall be in the power of the Senate to award the Fellowship to a suitable candidate although he is not a member of the University. Preference will be given (*ceteris paribus*) to candidates born in the City of Bradford or resident there for a period of not less than five years immediately before the date of the appointment.

The award of the Fellowship will be made ordinarily in the month of June. *Applications for the Fellowship should*

be made to the Clerk to the Senate of the University on or before the 1st of May preceeding the date of the award.

Grants out of the surplus moneys of the Fund may be made by the Senate on the recommendation of the Board of the Faculty of Science and Technology to increase the value of the Fellowship in any year, or to provide additional facilities for the prosecution of the research by the Fellow.

Provisional reports of the research work conducted by the Fellow shall be laid by the Supervising Committee before the Senate on or before the completion of each year of tenure of the Fellowship. At the expiration of the full period of tenure a final report shall be submitted to the Senate, together with copies of any papers published in connexion with the research.

Sir Swire Smith Fellowship

This Fellowship commemorates the services rendered to national education by the late Sir Swire Smith, Hon. LL.D., Member of the Court of the University of Leeds, M.P. for Keighley, and a member of the Royal Commission on Educational Instruction, 1881-4.

For its endowment, a sum of about £3,000, collected by public subscription, chiefly through the efforts of Sir John Clough and Mr. Augustus Spencer, was placed in the hands of the University in May, 1920, to be held in trust for the maintenance of a Fellowship.

The Fellowship is awarded to a graduate of any Faculty of the University who has given evidence of qualifications for undertaking advanced work.

The award, as a rule, is biennial. The Fellowship is tenable for two years and the holder is required to undertake and pursue a course of advanced study and research approved by the Senate.

The annual value of the Fellowship is not less than £150.

The award of the Fellowship is made ordinarily in the month of June. Applications must reach the Clerk to the Senate of the University on or before the 1st of May preceeding the date of the award. Each applicant must state the course of study which he proposes to follow and the University or other Institution for research to which he proposes to attach himself during the tenure of the Fellowship.

The Fellow is required to devote the whole of his time to the pursuit of the research in question, and to present a report of the work done to the Senate, such report to be sent in to the Clerk to the Senate before June 1st of the year following the award of the Fellowship. At the expiration of the full period of tenure a final report shall be submitted to the Senate.

Charles Edwyn Vaughan Fellowship

The late Emeritus Professor Charles Edwyn Vaughan bequeathed to the University a sum of £3,500 for investment for the purpose of founding a post-graduate Research Fellowship.

The annual value of the Fellowship will be not less than £150. The Fellowship is awarded to such graduate in the Department of English, or History, or Economics, as shall be judged the most fit and proper to receive it, and to be capable of undertaking special research work in English, or History, or Economics.

The award as a rule is made every two years. The Fellowship is tenable for two years and the holder is required to undertake and pursue a course of research approved by the Senate.

The award of the Fellowship is made ordinarily in the month of June. Applications should reach the Clerk to the Senate of the University on or before the 1st of May preceding the date of the award. Each applicant must state the course of study which he proposes to follow and the University or other Institution for research to which he proposes to attach himself during the tenure of the Fellowship.

The Fellow is required to devote the whole of his time to the pursuit of the research in question, and to present a report of the work done to the Senate, such report to be sent in to the Clerk to the Senate before June 1st of the year following the award of the Fellowship. At the expiration of the full period of tenure a final report shall be submitted by the candidate to the Senate.

In the event of no candidate of sufficient merit and distinction presenting himself in any year, the interest available for that year will be expended in the purchase of books for the Libraries in the Departments of English and History and Economics.

Cancer Research Fellowships

These Fellowships, four in number, have been given through the Yorkshire Council of the British Empire Cancer Campaign by Sir William H. Aykroyd, Bart., Lord Brotherton of Wakefield, Capt. W. Riley Smith and Mr. Bertram Parkinson, respectively for the prosecution of cancer research within the University. They will be awarded to duly qualified candidates by the Senate on the recommendation of the Board of the Faculty of Medicine after consultation with the Cancer Research Advisory Committee of the University of Leeds. They will be tenable for 1, 2, or 3 years, and may be renewed thereafter for such periods as the Senate may determine. The annual value of each Fellowship shall not exceed £500.

The holders of the Fellowships shall work under the direction of the Professor of Experimental Pathology (Director of Cancer Research) at such problems in the field of cancer research as he shall determine.

The Fellows will be required to devote the whole of their time to the prosecution of their researches and to present reports of their work to the Senate, unless the results are otherwise published in the form of communications to recognised scientific journals.

Fellows appointed for one year must submit a report on their work to the Clerk to the Senate at the end of that period. Fellows appointed for two years must send in an interim report at the end of the first year, and a further report at the end of the second year. Fellows appointed for three years must send in interim reports at the end of the first and second years, and a further report at the end of the third year. Similar reports will be required in the event of the renewal of the Fellowship. The tenure of the Fellowship will be conditional on such reports being satisfactory to the Professor of Experimental Pathology.

Appointment to vacant Fellowships may be made at any time; renewal will be made in January or June. Vacancies will be announced as they occur and applications should be lodged with the Clerk to the Senate.

PRIZES

Gladstone Memorial Prize

The Trustees of the Gladstone Liberal Memorial Fund have established Gladstone Memorial Prizes to be given at the Universities and University Colleges in England, Scotland and Wales for special proficiency in History, Political Science, and Economics. An annual prize of the value of £10 has been offered to and accepted by the Council of the University. The prize will be given either wholly in books, or half in books and half in money, at the option of the prize-winner. The prize will be awarded under the following conditions :

1. The prize will be awarded in June of each year for an Essay on some subject connected with History or Political Science or Economics, and the subjects of the Essays will be announced in the preceding June.
2. It will be open to competition among all students of Day Classes of the University who are in attendance upon University lectures for not less than four hours per week. Dissertations sent in for the degree of B.A. with Honours upon subjects connected with History, or Political Science or Economics will be regarded as competing for the Essay.
3. No student who has once obtained the prize may compete a second time.
4. No Essay in consideration of which either wholly or in part, a University Fellowship or Scholarship shall have been awarded, shall be admissible for other than honorary recognition.
5. The Essay must be sent in to the Clerk to the Senate *not later than May 1st* in each year.

The Connal Prize

Emeritus Professor B. M. Connal, on his retirement from the Chair of Latin, presented to the University the sum of £125 with the object of establishing a Prize in connexion with the Departments of Latin and Greek.

A Prize of £5 will accordingly be awarded under the following conditions :—

1. The Prize will be awarded by the Senate on the joint recommendation of the Professors of Latin and Greek in June of each year to the most meritorious student placed in the First Class in one of the following Honours Schools :—
Classics.
Latin.
Greek.
2. In making the award, preference will be given to students who have graduated with First Class Honours in Classics. In the event of no suitable candidate being available in this school, the Prize will be given to the most deserving student with First Class Honours in the Honours School of Latin, and, failing such a candidate, to the most deserving student with First Class Honours in the Honours School of Greek.
3. If in any year no candidate is placed in the First Class in any of the above-mentioned Honours Schools, no award will be made, and the unexpended sum, together with any accumulated surpluses of dividends, shall form a fund to be utilised by the Senate to give financial assistance to deserving students in any of these three Honours Schools.

The Ripon English Literature Prize

The Committee formed to obtain for the University, by subscriptions, a portrait of the late Chancellor, the Marquis of Ripon, K.G., presented to the University the surplus funds, amounting to £180, for investment, with a view to providing an Annual Prize in the subject of English Literature to be called "The Ripon English Literature Prize."

A Prize to the value of £6 will accordingly be awarded annually, under the following conditions.

1. The prize will be awarded in June of each year for an Essay on some subject connected with English Literature, and the subjects of the Essays will be announced in the preceding June.

2. It will be open to competition among all students of Day Classes of the University who are in attendance upon University lectures for not less than four hours per week. Dissertations sent in for the degree of B.A. with Honours upon subjects connected with English Literature will be regarded as competing for the Essay.
3. No student who has once obtained the prize may compete a second time.
4. No Essay, in consideration of which, either wholly or in part, a University Fellowship or Scholarship shall have been awarded, shall be admissible for other than honorary recognition.
5. The Essay must be sent in to the Clerk to the Senate *not later than May 1st* in each year.

Subjects of Essay for 1932.

The Scottish Chaucerians.

The Poems of G. M. Hopkins.

The Lucy Whitmell Prize

The late Mr. Charles T. Whitmell presented to the University the sum of £100 for investment, with a view to establishing a prize in Italian Language and Literature in memory of his late wife. A prize of the value of £5 will accordingly be awarded annually, under the following conditions :

1. The prize will be awarded in June of each year for an Essay on some subject in Italian connected with the life, works, and times of Dante, choice of a subject being left to the individual candidate.
2. It will be open to competition among all students of the University, including students in attendance on extramural courses under the supervision of the University.
3. No student who has once obtained the prize may compete a second time.

4. No Essay, in consideration of which, either wholly or in part, a University Fellowship or Scholarship shall have been awarded, shall be admissible for other than honorary recognition.
5. The Essay must be sent in to the Clerk to the Senate *not later than May 1st* in each year.

David Forsyth Prize

The sum of £238 was subscribed by past scholars of Dr. David Forsyth, for many years Head Master of the Leeds Central High School, for the endowment of a Forsyth Prize at the University. A prize of the value of £10 will accordingly be awarded annually under the following conditions:—

1. All students (men and women) who have completed an Honours course in Arts and Science, with the intention of becoming teachers in High or Secondary Schools are eligible.
2. Preference will be given to those candidates who have taken their preliminary education in Leeds High or Secondary Schools.
3. The prize will be awarded by the Senate in June of each year on the results of the examination for the Diploma in Education.

Dorothy Wharton Memorial Prize

A fund of £206 was subscribed by scholars and friends of the late Miss Dorothy Wharton, for many years Geography Mistress at Leeds Thoresby High School, for the purpose of encouraging the study of geography in this University. The annual income from the fund is approximately £9, and a prize of this amount, or its equivalent in books, will ordinarily be awarded each year, upon the recommendation of the Head of the Department, to the most meritorious woman student of those who have taken—

- (i) *Either* Part I. *or* Part II. of the Final Examination in the Honours School of Geography;

- or (ii) The Final Examination in Geography as a subject for B.Sc. General Honours ;
 or (iii) The Final Examination in Geography as a principal subject for the Ordinary degree of B.A. or B.Sc.

The Prize will not be awarded unless a sufficient standard of merit has been attained.

If in any given year no recommendation is made, the interest on the money shall be allowed to accumulate and used to supplement the income in a subsequent year or years.

J. B. Cohen Prize

This Prize was instituted in 1926 for the encouragement of chemical research, from the proceeds of a fund raised to commemorate the services of Julius Berend Cohen in the Department of Organic Chemistry as Lecturer, 1891-1904, and Professor, 1904-1925.

It is awarded annually by the Senate, on report from the Professors of Chemistry, Organic Chemistry and Physical Chemistry, to that successful candidate for the degree of Ph.D. or M.Sc. whose thesis or dissertation shall have been adjudged to contain the most valuable contribution to knowledge in the subject of Chemistry.

The Senate reserves the right to withhold the award of the Prize in any year if no thesis or dissertation of sufficient merit has been presented.

The value of the Prize is approximately £10.

Foyle Prize

This prize, which was instituted in 1927 by Messrs. W. G. Foyle, Booksellers, London, is of the value of £5, which must be expended in books. The conditions of award are as follows :—

1. The prize will be awarded in December of each year for an Essay on some subject connected with the Scientific Method and the general Development of Science, and the subjects of the Essays will be announced in the preceding June.

2. It is open to competition among all undergraduate students of Day Classes in the Science Faculty of the University who are in attendance upon University lectures for not less than four hours per week
 3. No student who has obtained the prize may compete a second time.
 4. No Essay, in consideration of which, either wholly or in part, a University Scholarship or Prize shall have been awarded, shall be admissible for other than honorary recognition.
 5. The Essay must be sent in to the Clerk of the Senate *not later than December 1st* in each year.
- The subject of the Essay for the session 1931-32 is "Science teaching in School and University."

Imperial Chemical Industries Ltd., Prizes in Mining

Two prizes are awarded annually by Imperial Chemical Industries Ltd., to students of the Mining Department under the following conditions:—

- (1) The annual sum of £7 10s., shall be allotted annually at the discretion of the Head of the Mining Department.
- (2) The sum shall be allotted as follows:—
 £5 to the student who does best in the Final Mining Examination.
 £2 10s., to the student who does best in Surveying, including Field Work, Drawing Office and Theory.
- (3) No student shall be awarded both prizes at any time.
- (4) No student shall be eligible unless he has had at least six months' practical experience in a mine.

Prizes in the Department of Agriculture

The Local Royal Show Committee, under the Chairmanship of Sir Harold Mackintosh, appointed to raise and administer the local fund in connection with the Annual Show of the Royal Agricultural Society held at Harrogate in 1929, on winding up the fund decided to

present to the University of Leeds, in recognition of the work of the Department of Agriculture, a sum of £338 19s. 10d. being one-quarter of their surplus. This sum has been supplemented by various donors. This money is used for a Prize Fund for students in the Department of Agriculture. The Prizes will be awarded under the following conditions :—

1. Three prizes will be ordinarily awarded in each year, one to a student completing the course for a diploma in Agriculture, one to a student completing the course for an 'Ordinary Degree in Agriculture, one to a student completing the course for an Honours degree within the Department of Agriculture.
2. The prizes for students taking the Ordinary Degree and Diploma Courses will be awarded on the results of the Final Degree and Diploma Examinations. Previous examinations and the class record of the students will also be taken into consideration.
3. The prize to a student completing an Honours course will be awarded for an essay ; the choice of a subject will be left to the individual candidate but the essay must be on some subject directly connected with agriculture. Reports on special investigations sent in for the degree of B.Sc. with Honours will, if the candidate desires, be regarded as competing for the prize, but no candidate shall submit more than one essay. The essay must be sent in to the Clerk to the Senate not later than 1st May in each year.
4. In the event of there being no candidate of sufficient merit in any year, any of the prizes may be withheld.
5. The prizes shall be of equal value, and the whole of the annual income of the fund shall be utilised for the purpose, provided that the value of each prize shall not exceed £6.

6. Any income not expended in any year shall be added to the capital of the fund.
7. The fund may be added to from time to time from donations received by the University for the Department of Agriculture, on the recommendation of the Agricultural Council and with the approval of the donors. The list of donors shall be published annually in the annual report of the Department.

Littlewood Prize in Anatomy

The late Colonel Harry Littlewood, formerly Professor of Surgery in the University, bequeathed a legacy of £1,000 to be applied for providing a Prize in the Anatomy Department, every year or in alternate years.

This prize will be awarded on the result of the examination in Anatomy for the Second M.B., Ch.B. in March of each year, provided that the candidates have attended the full course of Anatomy in this University, and that students for other qualifications who have attended the full course be permitted to compete for the prize.

Hardwick Prize in Clinical Medicine

This prize, of the value of ten pounds, is given annually on a competition which is held in February. Candidates must have been students in the School of Medicine of the University of Leeds for not less than eight terms; they must be attending the medical practice of the Leeds Infirmary; and they must have held or be then holding the office of Clinical Clerk in that Institution.

McGill Prize in Clinical Surgery

This prize, of the value of ten pounds, is given annually on a competition which takes place in February. Candidates must be students in the School of Medicine of the University of Leeds who have not at the time of the examination entered on their sixth year, and who have held at the Leeds Infirmary the following appointments:—In-patient dresser, ophthalmic dresser, in-patient medical clerk, post-mortem clerk, and gynaecological dresser.

Scattergood Prize in Obstetrics and Gynæcology

This prize, instituted in memory of the first Dean of the Medical Department, Yorkshire College, is awarded annually on a competition in Obstetrics and Gynæcology held in February.

The value of the prize, which consists of books or instruments, is five pounds.

Edward Ward Memorial Prize in Surgical Anatomy

The Edward Ward Memorial Prize in Surgical Anatomy of the value of £5 is awarded annually on a competition held under the following conditions:—

The Examiners for this Prize will be the Heads of the Departments of Anatomy and Surgery, and one of the Clinical Lecturers in Surgery to be appointed by the Board of the Faculty of Medicine.

The examinations will be held in March in the week preceding the Final examination, and will consist of: (a) a written paper, (b) *viva voce* examination on the living subject and (c) dissections

Students are eligible irrespective of the qualifications for which they are working, and must be in their final year (normally fifth year) but due allowance will be made for those whose course has been extended by extra courses for the B.Sc., for the Primary Fellowship, or for some other reason satisfactory to the Board.

West Riding Panel Practitioner's Prize

The prize is awarded annually on the result (in Medicine only), of the Final M.B., Ch.B. examinations in March and September of the same year, provided that students who are working for other qualifications and are otherwise eligible be allowed to compete, and provided that the candidate obtaining the highest number of marks is deemed by the examiners to have attained a standard worthy of the award. Candidates must have received their clinical training wholly in the Leeds General Infirmary and will not be eligible to compete after three years from the date of passing the

second M.B. or equivalent examination, excluding time occupied in working for a Final B.Sc. or Primary F.R.C.S. examination.

William Hey Medal

Sir Berkeley Moynihan has presented to the University the sum of £200 for investment, with a view of providing a gold medal for the most distinguished graduate with first-class Honours in the M.B., Ch.B. list of the Calendar year.

The award will be made by the Examination Committee in September on —

- (a) The results of the Final M.B. (Part III) examinations held in March and September of the same year. Previous examinations (Second M.B. and Final M.B., Parts I and II) will also be taken into consideration.
- (b) A consideration of the student's general standing, record and character. The successful student must have displayed qualities of such an order as to entitle to special distinction.

If two candidates show special merit and the funds of the trust allow, the examiners may recommend a double award.

Charles Rippon Medal

Mr. Charles Rippon, Ph.D., L.D.S., on his retirement from the Lecturship in Dental Mechanics, presented to the University the sum of £100 to provide a Silver Medal, to be awarded annually to the most distinguished student of the year in the School of Dentistry.

- (1) Candidates for the Medal must be students who are in the final year* of a normal full curriculum for a qualification in Dental Surgery (B.Ch.D. or L.D.S.), and who have pursued the full qualifying course at Leeds University after registration.
- (2) The award will be made by the Board of the Faculty of Medicine on the nomination of the Clinical Dental Committee after the results of the two Final examinations of the year have been ascertained. Only candidates who have

*In determining the final year due consideration will be given to the case of students who may have combined B.Sc. and M.B. Ch.B. courses with the dental curriculum.

attained a high standard of proficiency shall be eligible. In determining the award of the medal, account will be taken of the marks obtained in the Senior Operating Prize Examination as well as the reports of the tutors in the various clinical departments of the School.

- (3) No student will be allowed to compete for the medal more than once.
- (4) If two candidates show equal distinction two medals may be awarded, should there be sufficient funds for the purpose.

Percy Leigh Medal

Mr. Percy T. Leigh, L.D.S., R.C.S., (England), L.D.S. (Glasgow) presented to the University, with a view to the encouragement of the Science and Art of Dental Mechanics, the sum of £105 to provide a Gold Medal to be awarded annually to the most skilled senior pupil of the year in the Dental Mechanics Laboratory of the Dental School.

The conditions of award are as follows :—

1. A Gold Medal is available for award each year to the most skilled senior pupil in the Dental Mechanics Laboratory of the University of Leeds School of Dentistry, who has taken the full pupilage in the University.
2. The award will be made by the Board of the Faculty of Medicine on the nomination of the Clinical Dental Committee.
3. The Medal will be awarded on the result of an examination in Dental Mechanics to be held annually. A high standard of skill must be shown.
4. The adjudicators will consist of the Lecturer in Dental Mechanics and two members of the Honorary Dental Staff to be appointed by the Clinical Dental Committee. The adjudicators will report to that Committee the result of the examination.

5. No pupil will be permitted to compete for the Medal more than once.
6. If two candidates are equally deserving of the award, two Gold Medals may be awarded.

Leblanc Medal

The Leblanc Memorial Committee presented the Victoria University with a portion of the surplus from the fund raised in France for the erection of a statue of the distinguished chemist, Nicholas Leblanc, the amount to be devoted to the encouragement of the study of Chemistry. On the foundation of a separate University in Leeds a share of the fund was vested in the University of Leeds.

Leblanc Medals may be awarded at the Final Examination for the Degree of B.Sc. in the Honours Schools of Colour Chemistry, Leather, and Fuel and Metallurgy to such students as are reported by the Examiners to have shown special distinction, and who are recommended jointly by the Internal Examiners in these subjects.

FINANCIAL GRANTS TO STUDENTS

Sir Michael Sadler Memorial Fund

The Committee formed to obtain for the University by subscription a portrait of the late Vice-Chancellor, Sir Michael Sadler, K.C.S.I., presented to the University the surplus fund amounting to £730 for investment to form the nucleus of a fund for assisting necessitous students. Applications for grants from this Fund should be made to the Clerk to the Senate *not later than May 1st in each year.*

Students' Loan Fund

The Council in 1921 established a Loan Fund out of which advances, not exceeding in any case two thirds of the tuition fee for the session, may be made to students needing financial assistance to enable them to complete their courses. The student receiving such an advance (or if a minor his parent or guardian) signs an undertaking to repay the sum lent when he is able to do so. Applications, which are treated in strict confidence, should be addressed to the Registrar from whom forms for the purpose, together with the detailed conditions, may be obtained.

Students' Aid Fund

A Fund was established by the Council in 1925 for the purpose of affording financial assistance in cases of proved necessity. Applicants must be persons whose homes are in the British Isles and who are already students of the University at the time of making their applications. Forms of application and detailed conditions may be obtained from the Registrar. All information submitted will be treated as strictly confidential. While the advances made from this Fund are not loans it is hoped that recipients will make repayment when in later life they are able to do so, and by so doing enable the University to afford to future students help similar to that received by themselves.

Leighton Exhibitions

These Exhibitions were instituted in 1894 by the Trustees of the late Mrs. Isabel Leighton of Leeds.

Candidates must be registered students of the University of not less than two terms standing. They must have attended a Public Elementary school or schools in the City of Leeds for not less than three years.

Three Exhibitions are ordinarily offered each year, each of the annual value of £10, and are tenable for two years, and renewable for two years subject to the reports on the student's work during the first year of tenure being satisfactory.

The Exhibitions will not be awarded on any special examination, but *those students who are desirous of becoming candidates are required to send in their names to the Clerk to the Senate not later than May 1st in each year.*

In recommending candidates for appointment, the Senate will be guided by the position held by the candidates in their terminal examinations, and also by their general work and conduct. The need of the applicants for pecuniary assistance will also be taken into consideration.

The Exhibitions are tenable by day students pursuing any course of study in the Faculties of Arts, Science

and Technology, and may, with the consent of the Trustees, be held in conjunction with any other Scholarship.

The election will be made in the third term of the session, provided that there be suitable applicants.

Leeds City Council Fund

This Scholarship was founded by the Council of the University, in 1892, out of the sum voted by the Leeds City Council, and up to 1912 was awarded as an Entrance Scholarship. In 1912 the Council, on the recommendation of the Senate and with the approval of the City Education Committee, decided to utilise the money in extending the courses of deserving and necessitous Leeds students in attendance at the University.

In recommending candidates for appointment, the Senate will be guided by the position held by the candidates in their terminal examinations, and also by their general work and conduct. The need of the applicants for pecuniary assistance will also be taken into consideration.

Applications must be sent in to the Clerk to the Senate not later than May 1st in each year.

John Goodman Testimonial Fund

The income from the invested capital contributed by old students and friends of Emeritus Professor Goodman will be expended in making grants of Drawing Instruments or Text Books on Engineering. The value of each grant will be approximately £5

No student is eligible to receive a grant unless he has, prior to entering the University, worked for at least 12 months in an Engineering workshop (not an office) carried on purely for industrial purposes.

The grants will be made to students requiring financial assistance and who are pursuing a three years' course of instruction in Civil, Electrical or Mechanical Engineering. Applications for grants must be made in writing to the Professor of Engineering during June of the student's first

year. Successful candidates will receive their instruments or text books at the beginning of their first long vacation.

The Professor of Engineering will select the candidates and will recommend the Senate to make the awards accordingly. The names of the students receiving grants will not be made public, and no mark shall be put on the Instruments or Books which will allow of them being identified as coming from the Fund.

